Framework Convention on Climate Change

Distr.
GENERAL

FCCC/SBSTA/2000/10/Add.2
26 September 2000

Original: ENGLISH

SUBSIDIARY BODY FOR SCIENTIFIC AND TECHNOLOGICAL ADVICE

REPORT OF THE SUBSIDIARY BODY FOR SCIENTIFIC AND TECHNOLOGICAL ADVICE ON THE WORK OF ITS THIRTEENTH SESSION (PART ONE) LYON, 11-15 SEPTEMBER 2000

Addendum

METHODOLOGICAL ISSUES

LAND-USE, LAND-USE CHANGE AND FORESTRY[1]

Recommendation by the Subsidiary Body for Scientific and Technological Advice

[Draft decision -/CP.6

Land-use, land-use change and forestry under the Kyoto Protocol

The Conference of the Parties,

Noting Article 3.3 and 3.4 of the Kyoto Protocol,

Recalling its decisions 1/CP.4, 8/CP.4, 9/CP.4 and 16/C.P.5,

Acknowledging with appreciation the scientific advice provided in the *Special Report on Land-use, Land-use Change and Forestry* prepared by the Intergovernmental Panel on Climate Change,

Having considered the relevant recommendations of the Subsidiary Body for Scientific and Technological Advice,[2]

---

[1] This item was considered by the Subsidiary Body for Scientific and Technological Advice at the first part of the thirteenth sessions, under agenda item 9 (a).

[2] See document FCCC/SBSTA/2000/10.

1. *Recommends* that the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol, at its first session after the entry into force of the Protocol, adopt the attached draft decision;

2. *Requests* the Subsidiary Body for Scientific and Technological Advice to elaborate, for consideration at its ___ session, the reporting requirements, including standard formats where appropriate, to be included in the guidelines for the preparation of information under Article 7 of the Kyoto Protocol, to be recommended for adoption by the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol, at its first session, on the following issues:

(a) ...

(b) ...

3. *Invites* the Intergovernmental Panel on Climate Change (IPCC) to perform the following tasks, with a view to submitting the results to the Conference of the Parties (COP) for consideration at its eighth session:

(a) Elaborate methods to account for changes in carbon stocks and emissions by sources and removals by sinks resulting from activities under Article 3.3 and 3.4 of the Kyoto Protocol on the basis of the Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories and taking into consideration all guidance contained in the annex to draft decision -/CMP.1;

(b) Prepare a report on good practice guidance and uncertainty management related to verification, measurement, estimation, assessment of uncertainties, monitoring and reporting of net carbon stock changes and greenhouse gas emissions and removals in the land-use, land-use change and forestry sector;

(c) Prepare guidance on methodologies for the possible inclusion of activities of degradation and/or aggradation under Article 3.4 of the Kyoto Protocol;

(d) Develop definitions of a forest appropriate to each forest biome.]

[Draft decision -/CMP.1

Land-use, land-use change and forestry

The Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol,

Recalling Articles 2 and 3 of the United Nations Framework Convention on Climate Change, and Articles 2.1(a), 3.3, 3.4 and 5.2 of the Kyoto Protocol,

Further recalling decisions 1/CP.4, 8/CP.4, 9/CP.4 and 16/CP.5 of the Conference of the Parties,

Affirming that:

(a) Any land-use, land-use change and forestry activity carried out in addition to the commitments made under Article 4.1(d) of the Convention for the purposes of determining compliance of Annex I Parties with their quantitative emission limitation and reduction objectives under the Kyoto Protocol, must not change the global effect of the Kyoto Protocol, which is to mitigate climate change in the first commitment period by reducing anthropogenic emissions by sources minus removals by sinks covered by Annex A to the Kyoto Protocol by an aggregate proportion of at least 5 per cent with reference to their 1990 levels, in accordance with Article 3.1 of the Kyoto Protocol, including the use of project-based mechanisms;

(b) Any land-use, land-use change and forestry activity, for the purposes of determining compliance of Annex I Parties with their quantitative emission limitation and reduction objectives, must not result in an increase of anthropogenic emissions by sources minus removals by sinks deriving from application of removals by sinks from carbon dioxide and indirect nitrogen fertilization effects;

(c) In view of the impact of climate change on forests and desertification, forest conservation and rehabilitation of degraded vegetation cover are important climate change adaptation activities, and as such must be included among those activities to benefit from the share of proceeds of the mechanisms of the Protocol intended to meet the cost of adaptation. This is without prejudice to decisions on the inclusion of land-use, land-use change and forestry activities in the mechanisms of the Kyoto Protocol;

(d) The rules for the inclusion of land-use, land-use change and forestry activities in the accounting of Annex I countries, for purposes of compliance with their commitments under the Kyoto Protocol, must not imply a transfer of such commitments to a future commitment period;

(e) Carbon removed by land-use, land-use change and forestry activities shall be considered as a temporary removal. The Annex I Party that makes use of such removal to achieve compliance with its Kyoto Protocol commitment shall continue to be responsible for the equivalent emission reduction at the appropriate point in time;

(f) In the methodologies to account for emissions by sources and removals by sinks in the land-use, land-use change and forestry sector, no consideration shall be given to the simple presence of stocks of carbon in national reservoirs, in line with the provisions of Article 5.2 of the Kyoto Protocol,

Wishing to design a balanced, scientifically and environmentally-sound system of definitions and accounting, and to establish simple and practical rules and methodologies for the implementation of activities under Article 3.3 and 3.4 of the Kyoto Protocol, which can reduce uncertainty and can be implemented cost-effectively, taking into account the feasibility of designing such a system,

Affirming the need to maintain incentives to reduce emissions from fossil fuel combustion and other sources,

Acknowledging that all Parties must promote sustainable management of forests and other ecosystems, conserve biological diversity, and promote and cooperate in the conservation and enhancement, as appropriate, of sinks and reservoirs of all greenhouse gases not controlled by the Montreal Protocol, including biomass, forests and oceans as well as other terrestrial, coastal and marine ecosystems,

Recognizing the importance of protecting and enhancing sinks and reservoirs of greenhouse gases in achieving the quantified emission limitation and reduction commitments of the Parties included in Annex I,

Aware of the estimated magnitude and uncertainties related to the residual terrestrial uptake,

Mindful of the potential for sink reversal,

Seeking to avoid double counting of emissions minus removals or carbon stock changes,

Recalling the need for time-series consistency,

Noting potential synergies between the implementation of Article 3.3 and 3.4 and action by Parties to meet the objectives of the Convention on Biological Diversity, the Convention to Combat Desertification, the Convention on Wetlands (RAMSAR Convention), and Agenda 21,

Bearing in mind the different national circumstances of each Party regarding the protection and enhancement of sinks and reservoirs,

Noting that policies and measures to deal with climate change should be cost-effective so as to ensure global benefits at the lowest possible cost and should therefore be comprehensive, cover all relevant sources, sinks and reservoirs of greenhouse gases and adaptation, and comprise all economic sectors,

Noting the necessity to provide appropriate incentives for sustainable forest management through definitions of activities under Article 3.3 and 3.4 as well as their associated accounting rules,

Affirming that the inclusion of broad additional activities under Article 3.4 in the first commitment period must be consistent with the provisions of the Convention and the Kyoto Protocol,

Having considered decision -/CP.6 adopted by the Conference of the Parties at its sixth session,

1 *Adopts* the text contained in the annex to this decision.]

Annex

A. Definitions

Forest

Option 1: *Definition determined on country level*

Option 1a: *One definition of a forest selected by each Party itself*

1. Parties shall elect one definition of a forest in accordance with their national circumstances. The definition must be used consistently in the first [and subsequent] commitment period[s]. [The formulation of the definition is irrevocable.]

Option 1b: *Forest definitions for each forest type or biome occurring within the Party's boundaries*

2. Parties may choose to use several definitions of forest to account for different forest types in their country in accordance with their national circumstances. The definition(s) must be used consistently in the first [and subsequent] commitment period[s]. [The formulation of the definition(s) is irrevocable.]

Option 1c: *Use of the FAO definition as in the IPCC Special Report, with Party-specific thresholds for forest cover, tree height and minimum area*

3. For the purpose of applying Article 3 of the Kyoto Protocol, the definition of a forest is: land with tree crown cover (or equivalent stocking level) of more than *[Party to select a threshold of between 10 and 25]* per cent and area of more than *[Party to select a threshold of between 0.5 and 1]* hectares (ha). The trees should be able to reach a minimum height of *[Party to select a threshold between 0.25 and 5]* metres (m) at maturity in situ. [A forest] may consist either of closed forest formations where trees of various storeys and undergrowth cover a high proportion of the ground; or open forest formations with a continuous vegetation cover in which tree crown cover exceeds [*Party to select a threshold between 10 and 25*] per cent [, extending over an area of more than [*Party to select a threshold between 0.5 and 1 ha*]]. Young natural stands and all plantations established for forestry purposes which have yet to reach a crown density of [*Party to select a threshold between 10 and 25*] per cent or tree height of [*Party to select a threshold between 0.25 and 5 metres*] m are included under forest, as are areas normally forming part of the forest area which are temporarily unstocked as a result of human intervention or natural causes but which are expected to revert to forest.

Option 2: *Definitions and thresholds determined by COP*

Option 2a: *FAO definition with universal thresholds for forest cover, tree height, and minimum area*

4. For the purpose of applying Article 3 of the Kyoto Protocol, the definition of a forest is: land with tree crown cover (or equivalent stocking level) of more than [*COP to select a threshold of between 10 and 25 to be applied by all Parties*] per cent and area of more than [*COP to select a threshold of between 0.5 and 1 to be applied by all Parties*] hectares (ha). The trees should be able to reach a minimum height of [*COP to select a threshold between 0.25 and 5 to be applied by all Parties*] metres (m) at maturity in situ. [A forest] may consist either of closed forest

formations where trees of various storeys and undergrowth cover a high proportion of the ground, or open forest formations with a continuous vegetation cover in which tree crown cover exceeds [*COP to select a threshold between 10 and 25 to be applied by all Parties*] per cent [, extending over an area of more than [*COP to select a threshold between 0.5 and 1 ha to be applied by all Parties*]]. Young natural stands and all plantations established for forestry purposes which have yet to reach a crown density of [*COP to select a threshold between 10 and 25 per cent to be applied by all Parties*] per cent or tree height of [*COP to select a threshold between 0.25 and 5 metres to be applied by all Parties*] m are included under forest, as are areas normally forming part of the forest area which are temporarily unstocked as a result of human intervention or natural causes but which are expected to revert to forest.

Option 2b: *Forest definition for each biome (international level)*

The COP/MOP requests the IPCC to develop definitions of a forest appropriate to each forest biome. Annex I Parties shall designate biomes to the lands within its boundaries and apply the associated forest definition as developed by the IPCC to each biome in order to determine eligible activities under Article 3.3 and 3.4 of the Kyoto Protocol. Such designation shall be applied consistently during the first and subsequent commitment periods. The designation of biomes to the land is irrevocable, unless a change in vegetation or biome warrants a new designation. In cases where a Party alters the designation of biomes to the land, such changes shall be reported in accordance with Article 7 and reviewed in accordance with Article 8 of the Kyoto Protocol.

Afforestation

5. "Afforestation" is the conversion of non-forest to forest on land that has not historically[1] been forested.

Reforestation

6. "Reforestation" is the conversion of non-forest to forest on land that historically was forested, but that has been converted to non-forest. Re-establishment of the forest through planting, seeding and natural regeneration following harvesting will [not] be considered reforestation.

Meaning of "historic" - Distinction between afforestation and reforestation

7. For purposes of defining afforestation and reforestation for the first commitment period, "historic" is considered to mean since 1 January 1990 [the last ... years].

Deforestation

8. "Deforestation" is the conversion of forest to non-forest, which is not immediately followed by the establishment of the same forest type on the same site.

---

[1] For the definition of "historic", see paragraph 7.

Is forest harvesting considered deforestation?

9. Reductions in forest cover as a result of harvesting or other practices which occur as part of ongoing forestry practice are not considered deforestation under Article 3.3 of the Kyoto Protocol.

10. In cases where re-establishment of forest following harvesting takes place in the next commitment period, Parties shall provide information in accordance with Article 7 of the Kyoto Protocol, to distinguish acts of harvesting from acts of deforestation. Such information will be reviewed in accordance with Article 8 of the Kyoto Protocol.

Size of the assessment unit

11. For the purposes of determining the area of deforestation to come into the accounting system under Article 3.3, Parties shall determine canopy cover for each forested area within their borders for areas no greater than 10 ha [1 km^2] [10 km^2].

Revegetation

12. Revegetation is defined as human-induced activities that establish woody vegetation that covers a minimum area of 0.5 ha and does not meet the definitions of afforestation and reforestation in Article 3.3 and/or human-induced activities to increase carbon stocks on sites with minimum vegetation cover and low organic matter content.

13. Acts of revegetation include:

(a) Establishment of windbreaks and shelter belts;

(b) Establishment of native vegetation;

(c) Agroforestry planting of trees and the development of new tree crop products;

(d) Changes in stock management and other practices to encourage regeneration;

(e) Seeding or planting of legumes and grasses.

Forest management

14. Forest management is considered to include a combination of individual management activities related to multiple uses and services. Managed forests do not include parks, wilderness areas, wildlife preserves or other forests that are inaccessible. Carbon sequestration is one of the multiple functions of sustainable managed forests. Forest management activities are defined with the objectives to meet goals set by the forest owner.

Cropland management

15. Cropland management includes practices on land on which agricultural field crops are grown and on land that is considered cropland but is not being used for crop production.

Grazing land management

16. Grazing land management comprises practices aimed at manipulating the amount and type of forage and livestock produced. Grazing land includes lands on which the primary productive use is for livestock or other herbivore grazing. It can include lands such as natural pastures (native pastures), native hay, rangelands and drained peatlands. Grazing land management includes activities related to manipulating the amount and type of forage and livestock produced, such as forage species selection, fertilization, irrigation and drainage.

B. Eligibility

Eligibility

17. For Article 3.3, eligible activities are those that meet the requirements set forth in this decision and that have taken place on or since 1 January 1990 or in a year subsequent to 1990, but before the end of December of the last year of the commitment period.

18. Implementation of land-use, land-use change and forestry activities included under the provisions of Article 3 of the Kyoto Protocol shall be consistent with the objectives and principles of the FCCC and the Kyoto Protocol, the Convention on Biological Diversity, the Convention to Combat Desertification, the Ramsar Convention, the Rio Forest Principles, and Agenda 21.

Inclusion of eligible activities under Article 3.4 in the second and subsequent commitment periods

Option 1: *Inclusion of all activities for second and subsequent commitment periods*

19. All [human-induced] activities, and their associated changes in greenhouse gas emissions by sources and removals by sinks, other than afforestation, reforestation and deforestation shall be counted under Article 3.4 in the second and subsequent commitment periods.

Option 2: *Approve a limited list of additional activities for second and subsequent commitment periods*

20. The following human-induced activities, and their associated changes in greenhouse gas emissions by sources and removals by sinks, other than afforestation, reforestation and deforestation shall be counted under Article 3.4 in the second and subsequent commitment periods: [revegetation], [forest management], [cropland management], [grazing land management], [forest aggradation and degradation], [agroforestry], [establishment of urban greening], [control of forest fires and pest outbreaks].

Option 3: *Establish a process to determine the inclusion of activities*

21. *A proposal was made to establish, prior to the fixing of quantified objectives for the second commitment period, a list of agreed additional activities for use in the second and subsequent commitment periods, together with the rules, modalities and guidelines for their accounting.*

Inclusion of eligible activities under Article 3.4 in the first commitment period

Option 1: *No additional activities unless scale, uncertainty, and risk issues resolved*

22. No additional activities shall be pursued under the provisions of Article 3.4 during the first commitment period, unless the COP decides that the issues of scale, uncertainty and risk related to the sinks are resolved (see also paragraphs 34 to 35).

Option 2a: *Apply all approved activities*

23. During the first commitment period, Parties may choose to account for net changes in GHG emissions from all additional Article 3.4 activities listed in paragraph __ above, for the second and subsequent commitment periods.

Option 2b: *Selected list to be applied by all Annex I Parties*

24. During the first commitment period, the following activities shall be included by all Annex I Parties as additional human-induced activities under Article 3.4 of the Kyoto Protocol: *(specify the activities. This should be a subset of the list of additional activities that may be applied in the second and subsequent commitment periods).*

Option 2c: *Party chooses which activities it applies*

25. Parties shall report in accordance with Article 7 of the Kyoto Protocol, before the start of the first commitment period, which changes in carbon stocks and greenhouse gas emissions resulting from additional activities it elects to add to, or subtract from, its assigned amount during the first commitment period. Such activities shall be limited to those, or a subset of those, listed in paragraphs 19 and 20 above. Such a decision is irrevocable.

C. Accounting

Accounting

26. Subject to paragraphs __ *(insert those paragraph numbers determining the eligibility of activities)*, for the first commitment period, the adjustment to a Party's assigned amount shall be equal to the net changes in CO_2 greenhouse gas emissions, measured as verifiable changes in carbon stocks, and net changes in non-CO_2 emissions during the period 1 January 2008 to 31 December 2012 resulting from land-use, land-use change and forestry activities under Article 3 since 1 January 1990. Where the result of this calculation is a net sink, this value shall be added to the Party's assigned amount. Where the result of this calculation is a net emission, this value shall be subtracted from the Party's assigned amount.

27. If an area of land is subject to Article 3.3 activities as well as Article 3.4 activities, it shall be accounted for under Article 3.4.

Initiation of accounting during the commitment period

28. Accounting of net changes in carbon stocks and non-CO_2 greenhouse gas emissions resulting from land-use, land-use change and forestry activities under Article 3 shall begin with [the onset of the activity or] the beginning of the commitment period [, whichever comes later].

Duration of accounting

29. Once land is accounted for under Article 3, all changes in GHG emissions and removals occurring from this land must be accounted for over subsequent and contiguous commitment periods.

Carbon pools

30. Parties shall account for changes in carbon pools associated with land-use, land-use change and forestry activities under Article 3, which shall include: above-ground biomass, below-ground biomass, litter, dead wood, soil organic carbon, and harvested wood products from deforestation activities, in accordance with the Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories as required by Article 5.2, any future updates of (parts of) these Guidelines and, possible future good practice guidance to be developed by the IPCC on land-use, land-use change and forestry.

31. Parties shall account for all carbon pools that are a source of GHG emissions as a result of land-use, land-use change and forestry activities under Article 3, but may choose not to account for a given pool in a commitment period if transparent and verifiable information is provided that demonstrates that the pool in question is not a source.

Non-CO_2 gases

32. Non-CO_2 emissions and/or removals, and verifiable changes in carbon stocks resulting from land-use, land-use change and forestry activities under Article 3 shall be estimated, reported, and accounted for in accordance with methodologies agreed to by the COP, and any additional methodologies that may be agreed to by the COP and the COP/MOP at future sessions as a result of methodological work on inventory guidelines, good practice guidance and uncertainty management.

Separating out the natural uptake from human-induced effects on lands that are subject to land-use and forestry activities but that have not undergone a land-use change since 1990

Option 1: *No separation*

33. Changes in GHG emissions or removals as a result of direct human-induced activities, non-direct human-induced activities, and natural processes (extreme weather events, fire, pest invasion, El Niño cycles, CO_2 and nitrogen fertilization) shall be accounted for together on each area of land where an eligible activity has taken place.

Option 2: *Separation*

34. Only greenhouse gas removals from additional agreed land-use and forestry activities which can be shown to have a detectable direct human-induced effect on carbon stocks, shall be accounted for under the provisions of Article 3.4. This requirement shall be tested using verifiable statistical data to show that the hypothesis that the activity has no detectable human-induced effect, can be rejected with 10 per cent significance;

35. Accepted statistical tests and modeling techniques [to exclude carbon stock changes in all ecosystems caused by climate change, elevated carbon dioxide concentration and the effects of fertilization due to nitrogen fallout,] [to separate the direct human-induced effects from other effects,] shall be used singly or in combination to test the criterion referred to in paragraph 34. Such tests and techniques shall be based on data and information from:

(a) Control plots used for comparison between land subject to the activity and land not subject to it;

(b) Data from research plots;

(c) Existing forest survey and planting data collected in the last 10 years.

36. Deterministic model projections shall be used to factor out the dynamic effects of age structure in forest ecosystems.

37. Where such models, tests and techniques are not used, changes in carbon stocks associated with agreed activities shall only be applied if the rate of uptake exceeds 0.5 tonnes C/ha-yr for forest land and 0.1 tonnes C/ha-yr for grassland.[2]

38. Crediting of carbon stock increases due to human activities shall not exceed the net increase in carbon on lands affected by the actions.

Limiting debits and credits from Article 3.3 for all commitment periods

39. For the first commitment period, additions to a Party's assigned amounts as a result of reforestation activities, will be limited to reforestation occurring on those lands that did not contain forest in 1990.

40. Debits resulting from harvesting in the first commitment period [and other natural and human-induced effects] following afforestation and reforestation since 1990, shall not be greater than credits earned from sequestration on that unit of land.

Conditional "netting-out" of afforestation, reforestation and deforestation area

41. *A proposal was made that the area counted as deforestation during the first commitment period might be reduced by areas of afforestation and reforestation with the same or greater potential carbon content.*

---

[2] The natural uptake of cropland can be considered negligible.

Limiting credits from Article 3.4 for the first commitment period

Option 1: Limitation on credits using a ceiling

42. During the first commitment period, verifiable increases in carbon stocks associated with any agreed activities shall only be accountable under the provisions of Article 3.4 up to [X] per cent of the assigned amount.

Option 2: Limitation on credits using a discount rate

43. During the first commitment period, only 5 [X] per cent of the verifiable increases in carbon stocks associated with agreed activities [all activities/specified activities/activity Y] shall be accountable under the provisions of Article 3.4.

Option 3: Limitation on credits using a threshold

44. During the first commitment period, only verifiable increases in carbon stocks in excess of [a threshold level of X tonnes C/ha-yr] [0.5 tonnes C/ha-yr] associated with agreed activities [all activities/specified activities/activity Y] shall be accountable under the provisions of Article 3.4.

Option 4: Limitation on credits using a country-specific threshold

45. During the first commitment period, a Party may add to its assigned amount only the positive net removals in excess of the threshold [specified for that Party] [formula based on country-specific data and information].

Option 5: Limiting credits to address uncertainty

46. Changes in carbon stocks under Article 3.4 shall be adjusted for uncertainty in a conservative way by debiting or crediting carbon stock changes at the lower bound of the absolute value of the 95 per cent confidence interval.

Article 3.7

47. A single pre-commitment period review process should apply to all elements of a Party's inventory, including all emissions and removals associated with land-use change and forestry. The eligibility of a Party to apply the final sentence of Article 3.7 shall be based on a complete, reviewed inventory. For calculating the initial assigned amount, all greenhouse gas emissions associated with land-use, land-use change and forestry, in CO_2 equivalents, shall be taken into account.

48. The meaning of the final sentence of Article 3.7 of the Kyoto Protocol is that Parties for whom land-use change and forestry constituted a net source of greenhouse gas emissions in 1990 shall include their aggregate anthropogenic emissions minus removals from land-use change in their greenhouse gas inventory for the base year and subsequent years.

49. Emissions from land-use change, for the purpose of the implementation of Article 3.7 of the Kyoto Protocol, are those net emissions reported under the forest and grassland conversion and abandonment of managed lands subcategories of the Revised 1996 IPCC Guidelines.

50. Since Parties to which the final sentence of Article 3.7 applies will already have counted the effects of activities related to land-use change agreed under the provisions of Article 3.3 and Article 3.4 as part of their base year and subsequent inventories, further accounting of these activities under the provisions of Article 3.3 and 3.4 would not apply to these Parties.

D. Measuring and reporting

51. Areas of land under Article 3.3 and 3.4 shall be identifiable via guidelines on the national inventory system under Article 5.1 of the Kyoto Protocol.

52. Net changes in carbon stocks and greenhouse gas emissions and removals shall be [in line with the requirements of Articles 5, 7 and 8 of the Kyoto Protocol] [measured, estimated, monitored and reported, with associated uncertainties, in a manner consistent with the inventory guidelines adopted by the COP, or those to be adopted by the COP following methodological work by the IPCC and/or the COP, and any good practice guidance and uncertainty management adopted by the COP], [and the requirements for supplementary information agreed to by the COP/MOP under the provisions of Article 7.1 of the Kyoto Protocol.]

53. Depending on the choices made in paragraphs 1-4, one of the following options needs to be included. Parties shall provide information on [the source and suitability of their definitions] [the designation of biomes to the lands and the applied forest definitions] [the elected thresholds for forest cover, tree height, and minimum area] in accordance with Article 7 of the Kyoto Protocol [prior to the first commitment period]. [The definitions] [This information] [The choice of thresholds] shall be reviewed in accordance with Article 8 of the Protocol.

- - - - -

UNITED NATIONS

Framework Convention on Climate Change

Distr.
GENERAL

FCCC/SBSTA/2000/10/Add.3
29 September 2000

Original: ENGLISH

SUBSIDIARY BODY FOR SCIENTIFIC AND TECHNOLOGICAL ADVICE

REPORT OF THE SUBSIDIARY BODY FOR SCIENTIFIC AND TECHNOLOGICAL ADVICE ON THE WORK OF ITS THIRTEENTH SESSION (PART ONE) LYON, 11-15 SEPTEMBER 2000

Addendum

METHODOLOGICAL ISSUES

GUIDELINES UNDER ARTICLES 5, 7 AND 8 OF THE KYOTO PROTOCOL[1]

Annexes

		Page
I.	POSSIBLE ELEMENTS FOR A DECISION OR DECISIONS RELATED TO ARTICLES 5, 7 AND 8	2
II.	DRAFT GUIDELINES FOR THE PREPARATION OF THE INFORMATION REQUIRED UNDER ARTICLE 7 OF THE KYOTO PROTOCOL	12
III.	GUIDELINES FOR REVIEW UNDER ARTICLE 8 OF THE KYOTO PROTOCOL	25

[1] This item was considered by the Subsidiary Body for Scientific and Technological Advice at the first part of the thirteenth sessions, under agenda item 9 (b).

Annex I

POSSIBLE ELEMENTS FOR A DECISION OR DECISIONS RELATED TO ARTICLES 5, 7 AND 8

1. This document contains possible elements[1] on issues related to Articles 5, 7 and 8 of the Kyoto Protocol that could be incorporated in a draft decision or draft decisions by the Conference of the Parties (COP) at its sixth session and in a draft decision or draft decisions to be recommended to the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol (COP/MOP) for adoption at its first session.

2. The possible elements contained in this document relate to guidelines that are at different stages of development. Guidelines for national systems under Article 5.1 of the Kyoto Protocol were agreed upon by the Subsidiary Body for Scientific and Technological Advice at its twelfth session and can be found in document FCCC/SBSTA/2000/5 (annex I). Draft guidelines for the preparation of the information required under Article 7 of the Kyoto Protocol and draft guidelines for the review under Article 8 of the Kyoto Protocol that were considered by the SBSTA, at the first part of its thirteenth session, can be found in pages 12 and 25 of this document, respectively.

Elements related to guidelines for national systems under Article 5.1 of the Kyoto Protocol to be incorporated in a draft COP decision

The Conference of the Parties,

Recalling its decisions 1/CP.3, 1/CP.4 and 8/CP.4,

Noting Article 5.1 of the Kyoto Protocol,

Having considered the relevant recommendations of the Subsidiary Body for Scientific and Technological Advice,[2]

1. *Recommends* that the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol, at its first session after the entry into force of the Protocol, adopt the attached draft decision;

2. *Encourages* Parties included in Annex I to the Convention (Annex I Parties) to implement the guidelines for national systems under Article 5.1 of the Kyoto Protocol as soon as possible with the aim of gaining experience with their implementation;

3. *Urges* Parties included in Annex II to the Convention to assist Annex I Parties with economies in transition, through appropriate bilateral or multilateral channels, with the implementation of the guidelines for national systems under Article 5.1 of the Kyoto Protocol.

---

[1] As mentioned in document FCCC/SBSTA/2000/10, paragraph 40.

[2] Report of the second part of the thirteenth session of the SBSTA. In the present document, this report is identified as FCCC/SBSTA/2000/_.

Elements related to guidelines for national systems under Article 5.1 of the Kyoto Protocol to be incorporated in a draft COP/MOP1 decision

The Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol,

Recalling Article 5.1 of the Kyoto Protocol, in particular its provision that each Party included in Annex I to the Convention shall have in place, no later than one year prior to the start of the first commitment period, a national system for the estimation of anthropogenic emissions by sources and removals by sinks of all greenhouse gases not controlled by the Montreal Protocol,

Recognizing the importance of such national systems for the implementation of other provisions of the Kyoto Protocol,

Having considered decision (-)/CP.6, adopted by the Conference of the Parties at its sixth session,

1. *Adopts* the guidelines for national systems under Article 5.1 of the Kyoto Protocol;[3]

2. *Urges* Parties included in Annex I to the Convention to implement the guidelines as soon as possible.

[3] FCCC/SBSTA/2000/5, annex I.

Elements related to good practice guidance and adjustments under Article 5.2 of the Kyoto Protocol to be incorporated in a draft COP decision

The Conference of the Parties,

Noting Article 5.2 of the Kyoto Protocol,

Recalling its decisions 1/CP.3, 2/CP.3, 1/CP.4 and 8/CP.4,

Recognizing the essential role of high quality greenhouse gas inventories under the Convention and the Kyoto Protocol,

Recognizing the need for confidence in estimates of emissions by sources and removals by sinks for the purpose of ascertaining compliance with commitments under Article 3 of the Kyoto Protocol,

Acknowledging the importance of ensuring that anthropogenic emissions are not underestimated and that removals by sinks and base year emissions are not overestimated,

Having considered the relevant conclusions and recommendations of the Subsidiary Body for Scientific and Technological Advice,[4]

1. *Recommends* that the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol, at its first session after the entry into force of the Protocol, adopt the attached draft decision;

2. *Requests* the secretariat to organize a workshop prior to, and one or possibly more workshops after, the fourteenth session of the Subsidiary Body for Scientific and Technological Advice on methodologies for adjustments under Article 5.2 of the Kyoto Protocol with the participation of greenhouse gas inventory experts and other experts nominated to the UNFCCC roster of experts and experts involved in the preparation of the Intergovernmental Panel on Climate Change report entitled *Good Practice Guidance and Uncertainty Management in National Greenhouse Gas Inventories*. The purpose of the first workshop would be to elaborate draft technical guidance on methodologies for adjustments under Article 5.2, building upon submissions by Parties contained in documents FCCC/SBSTA/2000/MISC.1 and Add.1, FCCC/SBSTA/2000/MISC.7 and Add.1[5] as well as FCCC/TP/2000/1, for consideration by the Subsidiary Body for Scientific and Technological Advice at its fourteenth session. At that session, the Subsidiary Body for Scientific and Technological Advice should define more precisely the scope of the second workshop;[6]

3. *Requests* the Subsidiary Body for Scientific and Technological Advice to complete technical guidance on methodologies for adjustments under Article 5.2 of the Kyoto Protocol, building upon the attached draft decision and the outcome of the process described in

---

[4] FCCC/SBSTA/1999/14, paragraph 51 (i); FCCC/SBSTA/2000/5, paragraph 40 (b); FCCC/SBSTA/2000/_.

[5] Additional views that may be provided by Parties should also be taken into account.

[6] The organization of the workshops would be subject to availability of funds.

paragraph 2 above, for consideration by the Conference of the Parties at its eighth session, with a view to recommending, at that session, such technical guidance for adoption by the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol at its first session.

4. [*Decides* to consider relevant technical guidance on methodologies for adjustments under Article 5.2 of the Kyoto Protocol for estimates of emissions and removals from land-use, land-use change and forestry after completion of the work of the Intergovernmental Panel on Climate Change on good practice guidance on this matter, with a view to recommending such technical guidance for adoption by the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol at its first session.]

Elements related to good practice guidance and adjustments under Article 5.2 of the Kyoto Protocol to be incorporated in a draft COP/MOP1 decision

The Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol,

Recalling Article 5.2 of the Kyoto Protocol,

Further recalling decisions 1/CP.3, 2/CP.3, 1/CP.4 and 8/CP.4 of the Conference of the Parties,

Having considered decision (-)/CP.6 adopted by the Conference of the Parties at its sixth session,

1. *Endorses* the Intergovernmental Panel on Climate Change (IPCC) report entitled *Good Practice Guidance and Uncertainty Management in National Greenhouse Gas Inventories*, as accepted by the sixteenth session of the IPCC held in Montreal, Canada, 1 to 8 May 2000 (hereinafter referred to as the IPCC good practice guidance), as an elaboration of the *Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories*;

2. *Decides* that the good practice guidance referred to in paragraph 1 shall be used by Parties included in Annex I to the Convention in their preparation of national greenhouse gas inventories under the Kyoto Protocol;

3. *Decides* that adjustments referred to in Article 5.2 of the Kyoto Protocol should only be applied when inventory data submitted by Parties included in Annex I to the Convention are found to be incomplete and/or are calculated in a way that is not consistent with the *Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories* as elaborated by the IPCC good practice guidance;

4. *Decides* that the calculation of adjustments shall commence only after a Party included in Annex I to the Convention has been provided with the opportunities to correct any deficiencies in accordance with the time-frame and procedures set forth in the guidelines for inventory review under Article 8;

5. *Decides* that the adjustment procedure shall result in estimates that are conservative for the Party included in Annex I to the Convention concerned so as to ensure that

emissions are not underestimated [and removals by sinks] and base year emissions are not overestimated [and, at the same time, are not unreasonably exaggerated];

6. *Emphasizes* that adjustments are intended to provide an incentive for Parties to provide complete and accurate annual greenhouse gas inventories prepared in accordance with the *Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories* as elaborated by the IPCC good practice guidance. Adjustments are intended to correct inventory problems in specific source categories for the purpose of accounting of the Parties' emissions and assigned amounts. Adjustments are not intended to substitute for a Party's obligation to estimate and report greenhouse gas inventories in accordance with the *Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories* as elaborated by the IPCC good practice guidance;

7. *Decides* that adjusted estimates shall be calculated in accordance with the technical guidance on methodologies for adjustments contained in the annex to this decision. Such technical guidance shall ensure consistency and comparability and that similar methods are used for similar problems as far as possible across all inventories reviewed under Article 8 [and to ensure consistency with the base year emission estimates included in the Parties' national inventories];

8. *Decides* that a Party may submit a revised estimate for a part of its [commitment period] inventory to which an adjustment was previously applied, provided that the revised estimate is submitted, at the latest, in conjunction with the inventory for the year 2012. The revised estimate will replace the adjusted estimate subject to review under Article 8 [with the authorization of the compliance [institution][body]]. The option for a Party to submit a revised estimate for a part of its [commitment period] inventory to which an adjustment was previously applied should not prevent Parties from making best efforts to correct the problem at the time it was initially identified and in accordance with the timetable set forth in the guidelines for review under Article 8;

9. [*Decides* that a Party will only be rendered in non-compliance with Article 5.2 if, at any point during the commitment period, the sum of the percent difference for each year between the Party's total emissions according to its adjusted annual inventory and its submitted annual inventory, relative to the submitted inventory, exceeds [30][10][x] per cent, i.e. when $\Sigma((\text{adjusted inventory} - \text{submitted inventory})/(\text{submitted inventory})) > [0.30][0.10][x/100]$]

Annex to this decision

(to be elaborated in accordance with decision -/CP.6, paragraph 3 (above))

Possible elements related to guidelines for the preparation of the information required under Article 7 of the Kyoto Protocol to be incorporated in a draft COP decision

[*The Conference of the Parties*,

Recalling its decisions 1/CP.3, 1/CP.4, 8/CP.4, 3/CP.5 and 4/CP.5,

Noting the relevant provisions of the Kyoto Protocol, in particular its Article 7,

Having considered the relevant recommendations of the Subsidiary Body for Scientific and Technological Advice and the Subsidiary Body for Implementation,[7]

Recognizing that the reporting requirements on demonstrable progress as referred to in Article 3.2 of the Kyoto Protocol are to be included under guidelines for the preparation of the information under Article 7 of the Kyoto Protocol,

1. *Recommends* that the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol, at its first session, adopt the attached draft decision;

[2. *Decides* to further elaborate these guidelines at future sessions,]

[2. *Decides* to further consider the elements of the guidelines on matters relating to:

(a) Article 3.14 of the Kyoto Protocol, at its [seventh] [xth] session, taking into account decision __/CP.6 [*on matters relating to Article 3.14 of the Kyoto Protocol*]; and

(b) Article 3.3 and 3.4 of the Kyoto Protocol, at its [eighth] [xth] session, taking into account decision __/CP.6 [*on matters relating to Article 3.3 and 3.4 of the Kyoto Protocol*].]

(It is anticipated that the working group on mechanisms will finalize its work on registries and other issues relating to reporting requirements under Articles 6, 12 and 17 at COP 6. If not, then a paragraph similar to (a) and (b) will be added to reflect any relevant timing issues.)

(The following paragraph is an alternative to paragraph 2 of the possible elements of a COP/MOP decision related to Article 7 below. Parties should decide on the approach to be followed in relation to the timing of the use of these guidelines)

[3. *Requests* the Subsidiary Body for Implementation, at its sixteenth session, to prepare a draft decision on the start dates for reporting information under Article 7 of the Kyoto Protocol, taking into account the needs of the review process under Article 8 of the Kyoto Protocol, for consideration by the Conference of Parties at its eighth session, with a view to recommending it for adoption by the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol at its first session;]

---

[7] FCCC/SBSTA/2000/_.

[4. *Invites* Parties to submit their views, by 1 April 2001, on the definition of demonstrable progress in the context of Article 3.2 of the Kyoto Protocol, for compilation in a miscellaneous document to be considered by the Subsidiary Body for Scientific and Technological Advice at its fourteenth session.]

[5. Requests the Subsidiary Body for Scientific and Technological Advice to consider the above-mentioned views, at its fourteenth session, and to elaborate reporting requirements on matters related to Article 3.2, with a view to adoption of a decision on this matter by the COP at its seventh session.]]

Possible elements related to guidelines for the preparation of the information required under Article 7 of the Kyoto Protocol to be incorporated in a draft COP/MOP1 decision

[*The Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol,*

Recalling Article 7 of the Kyoto Protocol,

Having considered decision -/CP.6, adopted by the Conference of the Parties at its sixth session,

Recognizing the importance of transparent reporting for facilitating the review process under Article 8 of the Kyoto Protocol,

1. *Adopts* the guidelines for the preparation of information under Article 7 of the Kyoto Protocol,[6]

(The following paragraph is an alternative to paragraph 3 of the possible elements for a COP decision related to Article 7 above. Parties should decide on the approach to be followed in relation to the timing for the use of these guidelines)

[2. *Decides* that Parties included in Annex I to the Convention (Annex I Parties), bearing in mind Article 7.3 of the Kyoto Protocol and the needs of the review under Article 8 of the Kyoto Protocol, shall start using these guidelines for reporting of information as follows:

(a) Under Article 7.1 of the Kyoto Protocol by [*date*];

(b) Under Article 7.2 of the Kyoto Protocol by [*date*].]

[3. *Requests* Parties included in Annex I to the Convention to submit to the secretariat by [*date*] the information required by the guidelines for the preparation of information under Article 7 of the Kyoto Protocol, to enable the establishment of initial assigned amounts prior to the first commitment period, in accordance with Article [3.5, 3.7 and 3.8] [7.4] of the Kyoto Protocol.]

---

[6] Annex II to the present document.

[4. *Requests* the secretariat to make available to the expert review teams operating under Article 8 of the Kyoto Protocol, the information provided by Parties for the establishment of the initial assigned amounts of Annex I Parties, in accordance with Article [3.5, 3.7 and 3.8] [7.4] of the Kyoto Protocol, in order to facilitate the review of this information in accordance with the guidelines under Article 8 of the Kyoto Protocol, as soon as practicable after this information has been submitted by Annex I Parties;]

[5. *Requests* the secretariat to record the reviewed initial assigned amounts of all Annex I Parties by [*date*], [after which date they shall remain fixed for the duration of the commitment period] [after which date they shall remain fixed for the duration of the commitment period, unless the Party, no later than with the 2012 inventory report, provides a revised estimate, which is reviewed under Article 8]];

[6. *Recognizes* the importance of the first national communications submitted under the Kyoto Protocol in demonstrating the progress of Annex I Parties in achieving commitments under the Protocol;]

[7. *Determines* that each Annex I Party should demonstrate progress in a way that is appropriate to its national circumstances, including for example, through the institutional and legal steps it has taken to prepare to meet its obligations under the Protocol, such as:

(a) A national system for greenhouse gas estimation;

(b) A national registry for accounting for assigned amount;

(c) Domestic measures, including legislation, to implement Protocol obligations and mitigate greenhouse gas emissions; or

(d) Programmes for domestic compliance and enforcement;]

[8. *Decides* that, in this regard, the entirety of each Party's first national communication submitted under Article 7.2 of the Protocol is relevant for demonstration of progress by that Party;]

[9. *Decides* that a Party will be rendered in non-compliance with the inventory requirements under Article 7.1 only upon:

(a) Failure to submit an inventory of anthropogenic emissions by sources and removals by sinks within 60 days of the submission due-date; or

(b) Failure to include an estimate for a source category (as defined in chapter 7 of the IPCC good practice guidance) that individually accounts for 10 per cent or more of the Party's total annual emissions, as measured in the most recently reviewed inventory.]]

Possible elements related to guidelines for review under Article 8 of the Kyoto Protocol to be incorporated in a draft COP decision

[*The Conference of the Parties*,

Recalling its decisions 1/CP.3, 1/CP.4, 8/CP.4 and 6/CP.5,

Noting the relevant provisions of the Kyoto Protocol, in particular its Article 8,

Having considered the relevant recommendations of the Subsidiary Body for Scientific and Technological Advice and the Subsidiary Body for Implementation,[9]

1. *Recommends* that the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol, at its first session after the entry into force of the Protocol, adopt the attached draft decision __[CMP.1];

(The following two paragraphs may not be necessary. If all parts of the guidelines are completed, both paragraphs are unnecessary. If only some parts of the guidelines are completed, both paragraphs are necessary)

[2. *Endorses* parts I to [II] [III] [IV] [V] [VI] [VII] of the guidelines for review under Article 8 of the Kyoto Protocol;[10]]

[3. *Decides* that the elaboration of parts [III] [IV] [V] [VI] and [VII] of the guidelines for review under Article 8 of the Kyoto Protocol are to be completed in time for adoption at its [seventh] [eighth] session, taking into account decision -/CP.6 on mechanisms pursuant to Articles 6, 12 and 17 of the Kyoto Protocol and decision -/CP.6 on guidelines for the preparation of information under Article 7 of the Kyoto Protocol];

[4. *Requests* the Subsidiary Body for Scientific and Technological Advice and the Subsidiary Body for Implementation to consider, at their sixteenth sessions, the need for any revision to parts I and II of the guidelines for review under Article 8 of the Kyoto Protocol[2] arising from experience during the trial period in the use of the guidelines for the technical review of greenhouse gas inventories from Parties included in Annex I to the Convention; and to forward any draft decision on this issue to the Conference of Parties at its eighth session, with a view to recommending it for adoption by the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol at its first session;]

(The following paragraph is an alternative to paragraphs 2 to 4 of the possible elements for the COP/MOP decision related to Article 8 below. Parties should decide on the approach to be followed in relation to the timing of the use of these guidelines)

[5. *Requests* the Subsidiary Body for Implementation, at its sixteenth session, to prepare a draft decision on the start dates for review under Article 8 of the Kyoto Protocol, for

---

[9] FCCC/SBSTA/2000/_.

[10] Annex III to the present document.

consideration by the Conference of the Parties at its eighth session, with a view to recommending it for adoption by the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol at its first session;]]

Possible elements related to guidelines for review under Article 8 of the Kyoto Protocol to be incorporated in a draft COP/MOP1 decision

[*The Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol,*

Recalling Article 8 of the Kyoto Protocol,

Having considered decision (-)/CP.6, adopted by the Conference of the Parties at its sixth session,

Recognizing the importance of the review process under Article 8 for the implementation of other provisions of the Kyoto Protocol,

1. *Adopts* the guidelines for review under Article 8 of the Kyoto Protocol;[11]

(The following paragraphs are an alternative to paragraph 5 of the possible elements for the COP decision related to Article 8 above. Parties should decide on the approach to be followed in relation to the timing for the use of these guidelines)

[2. *Decides* to start the pre-commitment period review in…]

[3. *Decides* to start the annual review in …]

[4. *Decides* to start the annual compilation and accounting in…]]

[11] Annex III to the present document.

Annex II

DRAFT GUIDELINES FOR THE PREPARATION OF THE INFORMATION REQUIRED UNDER ARTICLE 7 OF THE KYOTO PROTOCOL

1. [The application of these provisions is mandatory for each Party included in Annex I to the Convention (Annex I Party) [(including regional economic integration organizations and their member States)], except for those expressed in non-mandatory language.]

I. GUIDELINES FOR REPORTING OF SUPPLEMENTARY INFORMATION UNDER ARTICLE 7.1

2. The objectives of these guidelines are:

(a) To enable Annex I Parties to meet their commitments for reporting information in accordance with Article 7.1;

(b) To promote the reporting of consistent, transparent, comparable, accurate and complete information by Annex I Parties;

Option 1[1]

(c) To enable the Compliance [Institution] to assess compliance with Article 3.1;

(d) To provide information for the Conference of the Parties (COP) serving as the meeting of the Parties to the Kyoto Protocol (COP/MOP) on the implementation of the Kyoto Protocol by Annex I Parties.

Option 2

(c) To ensure that the COP/MOP and any body that may be designated by the COP/MOP for compliance purposes have adequate information on the implementation of the Kyoto Protocol by Annex I Parties to carry out their assigned functions and to take decisions on any matter required for implementation of the Kyoto Protocol.

3. Each Annex I Party shall annually submit to the secretariat a [single report] [report to be incorporated in the annual inventory] containing the information required by these guidelines.

4. [The estimates and other information required by paragraphs 14 and 25, shall be accompanied by disclosure of the principal assumptions and the methodologies used by the Annex I Party in developing all of the estimates and other information, which shall be sufficiently detailed to enable a clear understanding of the basis for the estimates and other information.]

A. Greenhouse gas inventory information

5. Each Annex I Party shall submit an inventory of anthropogenic emissions by sources and removals by sinks of greenhouse gases not controlled by the Montreal Protocol, prepared in accordance with Article 5.2 and decisions of the COP/MOP, taking into account any relevant

decisions of the COP. A Party need not separately submit an inventory under Article 12 (a) of the Convention.

(REPORTING ISSUES RELATED TO ARTICLE 3.3 AND 3.4 WILL BE CONSIDERED AT A LATER STAGE PENDING THE OUTCOME OF THE WORKING GROUP ON LULUCF)

6. [Each Annex I Party shall include in the greenhouse gas inventory [annual] information on the estimation of emissions and removals from land-use, land-use change and forestry relevant to Article 3.3 and 3.4, in accordance with any guidelines, rules and modalities that may be adopted by the COP/MOP. These estimates shall be clearly distinguished from other parts of the inventory.]

7. [Each Annex I Party shall include in the greenhouse gas inventory information on the net changes in greenhouse gas emissions by sources and removals by sinks resulting from afforestation, reforestation and deforestation in the base year and commitment years.]

B. Information on [assigned amount] [ERUs, CERs and [AAUs] [PAAs]][1]

8. Each Annex I Party shall report, in a standard format, the following information, relevant to a given commitment period:

(a) Total quantity of ERUs, CERs and [AAUs] [PAAs] in its registry at the beginning of the previous calendar year;[2]

(b) Total quantity of [AAUs] [PAAs] issued into its registry[, including those in accordance with Article 3.3 or 3.4] by the Party during the previous calendar year;

(c) Total quantity of ERUs and [AAUs] [PAAs] acquired during the previous calendar year, identifying each transferring Party;

(d) Total quantity of CERs acquired during the previous calendar year, identifying each transferring Party, including CERs acquired in accordance with Article 12.10 from 2000 up to and including the previous calendar year, if not previously reported;

(e) Total quantity of ERUs[, CERs] and [AAUs] [PAAs] transferred during the previous calendar year, identifying each acquiring Party and indicating initial transfers of ERUs;

(f) Total quantity of ERUs, CERs and [AAUs] [PAAs] retired during the previous calendar year;

(g) Total quantity of ERUs, CERs and [AAUs] [PAAs] cancelled during the previous calendar year; and

(h) Total quantity of ERUs, CERs and [AAUs] [PAAs] in its registry at the end of the previous calendar year [, excluding ERUs, CERs and [AAUs] [PAAs] in retirement or cancellation accounts].

---

[1] Emission reduction units (ERUs), certified emission reductions (CERs), assigned amount units (AAUs), parts of assigned amount (PAAs).

[2] The calendar year is defined as the calendar year according to Universal Time (Greenwich Mean Time).

(REPORTING ISSUES RELATED TO ARTICLE 3.3 AND 3.4 WILL BE CONSIDERED AT A LATER STAGE PENDING THE OUTCOME OF THE WORKING GROUP ON LULUCF)

9. Each Annex I Party shall annually transmit from its registry to the secretariat, in a standard electronic format, the serial numbers of all ERUs, CERs and [AAUs] [PAAs] identified in paragraph 8 (b)-(h) above.

(REPORTING ISSUES RELATED TO ARTICLE 3.3 AND 3.4 WILL BE CONSIDERED AT A LATER STAGE PENDING THE OUTCOME OF THE WORKING GROUP ON LULUCF)

10. Upon expiration of the 'true-up period' after each commitment period, each Annex I Party shall report, in a standard format, the following information:

(a) Total quantity of all ERUs, CERs and [AAUs] [PAAs] acquired during the true-up period and identification of each transferring Party;

(b) Total quantity of all ERUs, CERs and [AAUs] [PAAs] transferred during the true-up period and identification of each acquiring Party;

(c) The quantity of all ERUs, CERs and [AAUs] [PAAs] in [its] retirement and cancellation accounts;

(d) The quantity of any ERUs, CERs and [AAUs] [PAAs] which the Party requests to be added to its assigned amount for subsequent commitment periods in accordance with Article 3.13;

(e) [Aggregate greenhouse gas emissions for all years of the first commitment period, and all adjustments applied during the first commitment period, if any;]

(f) *[(Information – on supplementarity under Articles 6 and 17.)]*

11. Each Annex I Party shall annually transmit from its registry to the secretariat, in a standard electronic format, the serial numbers of all ERUs, CERs and [AAUs] [PAAs] identified in paragraph 10 (a)-(d) above.

12. [Each Annex I Party shall, prior to the first commitment period, [report] [transmit] to the secretariat in a standard format the quantity of [AAUs] [PAAs] [and CERs] designated as its commitment period reserve in accordance with the procedures set out in (*cross reference to the decision(s) on mechanisms*).]

13. [Each Annex I Party shall annually [report] [transmit] to the secretariat in a standard format any adjustments to its commitment period reserve made in accordance with the procedures set out in (*cross reference to the decision(s) on mechanisms*).]

14. [Each Annex I Party shall report its current, best estimates of:

(a) The total amount of greenhouse gas emissions (expressed in tonnes of carbon dioxide equivalent) that the Annex I Party will be required to reduce, avoid or sequester during the first commitment period set forth in Article 3.7 of the Protocol, without taking into account net acquisitions of emission reduction units (ERUs), certified emission reductions (CERs), or

[assigned amount units (AAUs)] [(parts of assigned amount (PAAs)], in order to comply with its quantified emission limitation and reduction commitment under Article 3 of the Protocol;

(b) The amounts of ERUs, CERs, and [AAUs] [PAAs], individually and in aggregate, that the Annex I Party expects to acquire (net of transfers by the Annex I Party) during each year of the first commitment period.]

(The information in the paragraphs below is expected to be publicly available from the registry)

15. [Amount of [AAUs] [PAAs] allocated to legal entities resident in the Party, with breakdown by entity, at the beginning and at the end of the calendar year.]

16. Project numbers linked to detailed information related to clean development mechanism (CDM) projects.

17. [Summary information on the acquisition of CERs from CDM projects under Article 12, which may include the descriptions of project names, scales, sites and participants, the process of CER generation, the amount of CERs acquired, and how the funds for CDM are additional.]

18. [Summary information on the acquisition and transfer of ERUs from projects under Article 6 of the Kyoto Protocol, which may include the descriptions of project names, scales, project sites, participants, the process of ERU generation, and the amount of ERUs acquired and transferred.]

19. [Summary information on acquisitions and transfers under Article 17 of the Kyoto Protocol, which may include the descriptions of the process of acquisition and transfer.]

C. National systems in accordance with Article 5.1

20. Each Annex I Party shall include in its national inventory report information on any changes that have occurred in its national system, compared to information reported in its last submission, including information submitted under Article 7.2.

D. National registries

21. Each Annex I Party shall include in [its national inventory report] information on any changes that have occurred in its national registry, compared to information reported in its last submission, including information submitted under Article 7.2.

[E. Adjustments in accordance with Article 5.2

22. If adjustment(s) has(have) occurred during the previous year, the Annex I Party concerned shall report which inventory data were adjusted and reference the adjustment report(s) issued by the adjustment team.]

(Information with respect to revised estimates)

[F. Compliance]

[G. Information on activities under Articles 6, 12 and 17

(REPORTING ISSUES RELATED TO ARTICLES 6, 12 AND 17 WILL BE CONSIDERED AT A LATER STAGE PENDING THE OUTCOME OF THE WORKING GROUP ON MECHANISMS)

23. Each Annex I Party shall provide the uniform resource locator (URL) on the Internet from which information on projects having generated ERUs or CERs during the relevant year is available. Likewise, it shall provide the uniform resource locator from which up-to-date information may be found on entities which are authorized by the Party to participate in the mechanisms pursuant to Articles 6, 12 or 17.]

[H. Information on Article 3.14

(REPORTING ISSUES RELATED TO ARTICLE 3.14 WILL BE CONSIDERED AT A LATER STAGE PENDING THE OUTCOME OF THE WORKING GROUP ON ARTICLE 4.8 AND 4.9 OF THE CONVENTION AND ARTICLE 3.14)

Option 1

24. Information on the implementation of Article 3.14 of the Kyoto Protocol, in particular the information related to national policies and measures to minimize the adverse effects on international trade, and social environmental and economical impacts on other Parties, especially developing country Parties.

25. The Annex I Party's current, best estimate, expressed qualitatively and quantitatively, of the effects of its policies and measures undertaken pursuant to Article 2.1 and 2.2 of the Protocol and otherwise undertaken to achieve its quantified emission limitation and reduction commitment under Article 3.1 of the Protocol on developing countries and in particular those identified in Article 4.8 and 4.9 of the Convention, including the Annex I Party's best quantitative estimates of the effects of those policies and measures on such developing countries with respect to:

(a) The unit quantity and monetary amount of raw materials, fuels, and finished goods exported to the Annex I Party by developing country Parties in each year during the period 2000 through 2012;

(b) The prices of raw materials, fuels, and finished goods imported from the Annex I Party by developing country Parties in each year during the period 2000 through 2012;

(c) The interest rates and the total interest payable by developing country Parties to the Annex I Party and its legal entities on the external debt of developing country Parties during the period 2000 through 2012.

Option 2

26. Subsequent to the development by the COP/MOP of methodologies and case studies for assessing the impacts of climate change and after a formal demonstration by developing

countries of the harm resulting from the impacts of these response measures and after assessment of the effects of the harm from these response measures, Parties will provide information pertaining to Article 3.14.]

II. GUIDELINES FOR REPORTING OF SUPPLEMENTARY INFORMATION UNDER ARTICLE 7.2

27. The objectives of these guidelines are:

(b) To enable Annex I Parties to meet their commitments for reporting information in accordance with Article 7.2;

(c) To promote the reporting of consistent, transparent, comparable, accurate and complete information by Annex I Parties;

Option 1

(c) To ensure that the COP/MOP and any body that may be designated by the COP/MOP for compliance purposes have the information necessary to carry out their assigned functions and to take decisions on any matter required for implementation of the Kyoto Protocol.

Option 2

(c) To provide information on the implementation of the Kyoto Protocol to the COP/MOP and any body that may be designated by the COP/MOP for compliance purposes.

28. In its national communication submitted under Article 12 of the Convention and in accordance with the relevant decisions of the COP, each Annex I Party shall include the information required under paragraphs x-y[3] below.

29. [The estimates and other information required by paragraphs xx-yy,[4] shall be accompanied by disclosure of the principal assumptions and the methodologies used by the Annex I Party in developing all of the estimates and other information, which shall be sufficiently detailed to enable a clear understanding of the bases for the estimates and other information.]

A. National registries

(REPORTING ISSUES RELATED TO NATIONAL REGISTRIES WILL BE CONSIDERED AT A LATER STAGE PENDING THE OUTCOME OF THE WORKING GROUP ON MECHANISMS)

30. Each Annex I Party shall provide a description of its national registry. The description shall include the following information:

---

[3] Depends on the final numbering of paragraphs in these guidelines.
[4] Depends on the final numbering of paragraphs in these guidelines.

[(a) The name and contact information for the designated representative responsible for the Party's national registry;

(b) A description of the database structure used in the Party's national registry;

(c) A list of and the electronic format of the information transmitted electronically from the Party's national registry to an acquiring Party's national registry when transferring assigned amount;

(d) A list of and the electronic format of the information that would be transmitted electronically from the Party's national registry to the independent transaction log when issuing, transferring, acquiring, retiring and cancelling assigned amount;

(e) An explanation of the procedures employed in the Party's national registry to prevent discrepancies in the transfer, acquisition, and retirement of assigned amount;

(f) An overview of security measures employed in the Party's national registry to deter computer attacks and minimize operator error;

(g) A list of publicly accessible data elements available through the electronic interface (e.g. World Wide Web site) to the Party's national registry;

(h) An explanation of how to access information through the electronic interface to the Party's national registry.]

B. [Supplementary information relevant to][Implementation of] Articles 6, 12 and 17

(REPORTING ISSUES RELATED TO ARTICLES 6, 12 AND 17 WILL BE CONSIDERED AT A LATER STAGE PENDING THE OUTCOME OF THE WORKING GROUP ON MECHANISMS)

31. [Each Annex I Party that participates in Kyoto Protocol mechanisms under Articles 6, 12 or 17 shall report:

(a) A description of any institutional arrangements and decision-making procedures that it has in place to coordinate activities related to participation in the mechanism(s), including the participation of legal entities;

(b) General information on projects under Article 6 (summarizing detailed information on each project as publicly available on the Internet);

(c) Information on how its project activities under Article 12 have assisted Parties not included in Annex I to the Convention in achieving sustainable development and in contributing to the ultimate objective of the Convention (*reference should be made to reports issued by the non-Annex I Parties hosting projects*);

(d) Information on names and contact details of legal entities, within the jurisdiction of the Party, that are (or have been) authorized to participate in mechanisms under any of Articles 6, 12 and 17;

(c) Estimates of the expected contribution that each mechanism will allow towards compliance with the Party's quantified emission limitation and reduction commitment under Article 3.]

C. Supplementary information relevant to Article [2 and] 3

1. Base year (Article 3.5 and 3.8)

(It was proposed to consider the paragraphs below under section III)

32. Each Annex I Party shall provide information on the base year[s] it uses for [each] HFC[s], PFC[s] and SF_6, for the purpose of calculating its commitments under Article 3.7.

33. Each Annex I Party undergoing the process of transition to a market economy shall recall in its national communications which base year or period was agreed by the COP/MOP for the implementation of its commitments under Article 3.

[2. Demonstrable progress in 2005 (Article 3.2)

34. Each Annex I Party shall provide, in all relevant sections of its fourth national communication, information to demonstrate that progress has been made in achieving its commitments under the Kyoto Protocol. (*Specific guidelines to be drafted later*)

35. Information on the implementation of Article 3.2 of the Kyoto Protocol showing what demonstrable progress has been made in achieving the commitment under this Protocol by the year 2005, and how.

36. All steps the Annex I Party has taken and anticipates taking to comply with its commitment contained in Article 3.2 of the Protocol, including a detailed explanation as to why the Annex I Party believes, with respect to each of its separate commitments contained in the Protocol, that the described steps do or do not constitute "demonstrable progress in achieving" each such commitment.]

3. [Minimization of adverse impacts under Articles 2.3 and 3.14]

(REPORTING ISSUES RELATED TO ARTICLES 2.3 AND 3.14 WILL BE CONSIDERED AT A LATER STAGE PENDING THE OUTCOME OF THE WORKING GROUP ON 4.8 AND 4.9 OF THE CONVENTION AND ARTICLE 3.14)

[D. Joint fulfilment of commitments in accordance with Article 4

37. A regional economic integration organization that becomes a Party to this Protocol pursuant to Article 24.1 shall include in its national communication information on the implementation of:

(a) Any measures aimed at enforcing the respective emission levels of members set forth in an agreement under Article 4 to fulfil their commitments under Article 3 jointly;

(b) The respective roles and responsibilities of the regional economic integration organization and its member States with respect to their participation in the Kyoto mechanisms;

(c) Measures taken to ensure the consistency of inventory and assigned amount information gathered and reported by the regional economic integration organization and by its member States.]

E. National systems in accordance with Article 5.1

38. Each Annex I Party shall provide a description of how it is performing the general and specific functions defined in the guidelines for national systems under Article 5.1. The description shall contain the following elements:

(a) The name and contact information for the national entity and its designated representative(s) with overall responsibility for the Party's national inventory;

(b) The roles and responsibilities of various agencies and entities in relation to the inventory development process, as well as the institutional, legal and procedural arrangements made to prepare the inventory;

(c) A description of the process for collecting activity data, for selecting emission factors and methods, and for the development of emission estimates;

(d) The process and the results of key source identification and, where relevant, archiving of test data;

(e) A description of the process for the recalculation of previously submitted inventory data;

(f) A description of the quality assurance and quality control plan, its implementation and the quality objectives established, and information on internal and external evaluation and review processes and their results in accordance with the guidelines for national systems;

(g) A description of the procedures for the official consideration and approval of the inventory.

39. If a Party has not performed all functions, except for those expressed in a non-mandatory language, in the guidelines for national systems, the Party shall provide an explanation of which functions were not performed or were only partially performed and information on the actions planned or taken to perform these functions in the future.

F. Policies and measures in accordance with Article 2

40. In providing information under part II, section V, of the guidelines for the preparation of national communications by Parties included in Annex I to the Convention (FCCC/CP/1999/7), each Annex I Party shall specifically address policies and measures implemented and/or further elaborated in order to [reduce or limit emissions of greenhouse gases (GHGs) not controlled by the Montreal Protocol] [meet its commitments under the Kyoto Protocol].

(REPORTING ISSUES RELATED TO ARTICLE 4.2(e)(i) OF THE CONVENTION WILL BE CONSIDERED AT A LATER STAGE PENDING THE OUTCOME OF THE WORKING GROUP ON POLICIES AND MEASURES)

41. [In addition, it shall identify steps taken to cooperate with other Parties to enhance the individual and combined effectiveness of their above-mentioned policies and measures pursuant to Article 4.2(e)(i) of the Convention.]

42. [With respect to the transport sector, each Annex I Party shall identify which steps it has taken through the International Civil Aviation Organization and the International Maritime Organization in order to limit or reduce of emissions of GHGs not controlled by the Montreal Protocol from aviation and marine bunker fuels.]

43. [Information on the implementation of Article 2 of the Kyoto Protocol, in particular information on national policies and measures to mitigate climate change such as: energy efficiency improvement, development of new and renewable energy; national policies and measures to minimize the adverse effects on international trade, and social environmental and economic impacts on other Parties, especially developing country Parties.]

44. [All steps taken by the Annex I Party to comply with its commitments contained in Article 2.3 of the Protocol, including steps taken to remove subsidies and other market distortions and tax restructuring to reflect the GHG content of the emitting sources, and detailed information describing how and the extent to which each such step contributed to minimizing the adverse effects and impacts referred to in that article and in the information provided pursuant to paragraph 25.]

[G. Domestic legislative arrangements and enforcement and administrative procedures

45. Each Annex I Party shall report any relevant information on its domestic legislative arrangements and enforcement and administrative procedures, according to its national circumstances. This information shall include:

(a) A description of the domestic legislative arrangements and enforcement and administrative procedures a Party has in place to meet its commitments under Articles 3.1, [4,] 6, 12 and 17 of the Kyoto Protocol, including the legal authority for such programmes, how they are implemented [, and what resources are devoted to implementation];

(b) A description of the effectiveness of the above legislative arrangements and enforcement and administrative procedures, including a summary of action taken to identify, prevent, address, and enforce cases of non-compliance with domestic law; and

(c) A description of how information related to legislative arrangements and enforcement and administrative procedures (e.g. rules on enforcement and administrative procedures, action taken) is made public.]

[H. Information under Article 10

Option 1

46. Information on what and how technologies have been transferred by developed country Parties under Article 10 of the Protocol. A uniform reporting format could be designed for this purpose.

Option 2

47. Information on programmes and activities carried out pursuant to Article 10.]

[I. Information under Article 11

Option 1

48. Information on the implementation of Article 11 of the Kyoto Protocol, in particular, information on how the additional financial resources have been provided. A uniform reporting format could be designed for this purpose.

49. The annual contributions by the Annex I Party to each of the funds established by the Conference of the Parties with respect to Article 4.3, 4.5, 4.8 and 4.9 of the Convention and to each of the funds established by the Conference of Parties serving as the meeting of the Parties to the Protocol with respect to Articles 2.3, 3.14 and 12 of the Protocol, showing the date of each contribution since establishment of each fund.

Option 2

50. Information on new and additional financial resources to meet the agreed full costs incurred by developing country Parties in advancing the implementation of existing commitments under Article 4.1(a) of the Convention.]

III. MODALITIES FOR ACCOUNTING FOR ASSIGNED AMOUNT UNDER ARTICLE 7.4

A. Establishment of initial assigned amount

51. [By 1 January 2007,] each Annex I Party [, including [those][each Party] operating under Article 4,] shall individually submit to the secretariat a report to establish its initial assigned amount and to demonstrate its capacity to account for its emissions and assigned amount during the commitment period. This report shall include the following information:

(a) A greenhouse gas inventory and national inventory report containing complete inventories for all years from 1990, or other approved base year under Article 3.5, to the most recent year available, including emissions and removals from land-use, land-use change and forestry, in accordance with paragraph 3 of these guidelines;

(b) Identification of its selected base year[s] under Article 3.8;

(c) Calculation of its initial assigned amount, pursuant to Article 3.7;

(d) Serial numbers for its entire initial assigned amount, in accordance with relevant decisions of the COP/MOP;

(e) A description of its national system for greenhouse gas estimation reported in accordance with paragraphs 38-39 of these guidelines;

(f) A description of its national registry for tracking its assigned amount reported in accordance with paragraph 30 of these guidelines.

52. [Any Party operating under Article 4 of the Protocol shall report the serial numbers of initial assigned amounts that it has transferred or acquired pursuant to its Article 4 arrangement, and identify each acquiring or transferring Party.]

Option 1

53. [The initial assigned amount of each Annex I Party, calculated pursuant to Article 3.7, shall be recorded in the secretariat's database for accounting for emissions and assigned amount. Once the initial assigned amount is recorded, it shall remain fixed for the duration of the commitment period.]

Option 2

54. [The initial assigned amount of each Annex I Party, calculated pursuant to Article 3.7, shall be recorded in the secretariat's database for accounting for emissions and assigned amount. Once the initial assigned amount is recorded, it shall remain fixed for the duration of the commitment period, unless the Party provides a revised estimate no later than in the 2012 inventory report and which is reviewed under Article 8.]

B. National registry requirements

(REPORTING ISSUES RELATED TO NATIONAL REGISTRIES WILL BE CONSIDERED AT A LATER STAGE PENDING THE OUTCOME OF THE WORKING GROUP ON MECHANISMS)

[C. Issuance and cancellation of assigned amounts related to Article 3.3 and 3.4

(MODALITIES FOR THE ISSUANCE AND CANCELLATION OF ASSIGNED AMOUNT IN RELATION TO ARTICLE 3.3 AND 3.4 WILL BE CONSIDERED AT A LATER STAGE PENDING THE OUTCOME OF THE WORKING GROUP ON LULUCF)

55. A Party shall only issue or cancel an assigned amount in its national registry, in relation to Article 3.3 and 3.4, after review of the inventory information submitted under Article 7.1 in accordance with the guidelines for inventory review under Article 8 and the resolution of any questions of implementation regarding the inventory information reported in relation to Article 3.3 and 3.4.

56. An assigned amount issued by the Party in accordance with paragraph 55 above shall match the inventory estimate in relation to Article 3.3 and 3.4, including any adjustments applied to the estimate.

57. Where a Party fails to meet the requirements of Articles 5.2 and 7.1 for the preparation and reporting of inventory estimates in relation to Article 3.3 and 3.4, then they shall not issue any assigned amount for such estimates until the Party has been determined to have met the requirements of Articles 5.2 and 7.1.]

IV. LANGUAGE

58. The information reported in accordance with these guidelines shall be submitted in one of the official languages of the United Nations. [Annex I Parties [shall][are encouraged to] submit [, where applicable, a translation of this information] [the information under Article 7.1] in English.] [Translation into English is encouraged.]

V. UPDATING

59. These guidelines shall be reviewed and revised, as appropriate, [by consensus,] in accordance with decisions of the COP/MOP, taking into account any relevant decisions of the COP.

Annex III

GUIDELINES FOR REVIEW UNDER ARTICLE 8 OF THE KYOTO PROTOCOL

PART I: GENERAL APPROACH TO REVIEW

A. Objectives

1. The objectives for review under Article 8 of the Kyoto Protocol are:

(a) To establish a process for a thorough, objective and comprehensive technical assessment of all aspects of the implementation of the Kyoto Protocol by Annex I Parties;

(b) To promote consistency and transparency in the review of information submitted by Annex I Parties under Article 7 of the Kyoto Protocol;

(c) To assist Annex I Parties in improving their reporting of information under Article 7 and the implementation of their commitments under the Protocol;

(d) To ensure that the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol (COP/MOP) and any body that may be designated by the COP/MOP for compliance purposes have the information necessary to carry out their assigned functions and to take decisions on any matter required for implementation of the Kyoto Protocol.

[A(bis). Applicability

2. Each Party included in Annex I will be subject to review in accordance with the provisions of these guidelines. For the Parties included in Annex I, the review process established under these guidelines shall take the place of any existing review under the Convention and shall satisfy any requirements with respect to review under the Convention.]

B. General approach

3. The provisions of these guidelines shall apply to the review of information submitted by Annex I Parties under Article 7 and relevant decisions of the Conference of the Parties (COP).

4. Expert review teams should assess the implementation of the commitments of Annex I Parties and identify potential problems in, and factors influencing, the fulfilment of commitments. Expert review teams should conduct technical reviews [but not determine if an Annex I Party is in compliance with its commitments under the Protocol.]

5. Annex I Parties shall provide expert review teams with access to information necessary to substantiate the implementation of their commitments under the Kyoto Protocol, in accordance with relevant guidelines adopted by the COP and/or the COP/MOP.

6. Expert review teams should provide questions to, or request additional information from, Annex I Parties. Expert review teams may use relevant technical information in the review process, [such as information from international organizations and other sources, to substantiate information provided by Annex I Parties and when raising questions for Annex I Parties.]

7. There shall be fixed time-frames for:

(a) Reviews during the pre-commitment period, annual reviews and periodic reviews for each Annex I Party as set out in parts II to VII of these guidelines;

(b) Each stage of a review [cycle] in the pre-commitment period review, annual review and periodic review for each Annex I Party as set out in parts II to VII of these guidelines;

(c) Annex I Parties to respond to questions raised or requests for additional information during the reviews as set out in parts II to VII of these guidelines. Failure by an Annex I Party to respond within the given time-frame should not lead to delay in the completion of any stage of the review [cycle].

C. General timing and procedures

1. Review prior to the first commitment period

8. Each Annex I Party shall be subject to review prior to the first commitment period.

9. The expert review team shall review for each Annex I Party, prior to the first commitment period:

(a) The base year inventory for conformity with Article 5.2, in accordance with the procedures contained in part II of these guidelines;

(b) The calculation of the initial assigned amount pursuant to Articles 3.7 and 7.4 and in accordance with the procedures contained in part III of these guidelines;

(c) The national system pursuant to Article 5.1, in accordance with the procedures contained in part IV of these guidelines;

(d) The inventory for the most recent year, for conformity with requirements under Articles 5.2 and 7.1, in accordance with the procedures contained in part II of these guidelines;

(e) The national registries pursuant to Article 7.4, in accordance with the procedures contained in Part V of these guidelines;

(f) [Projects under Article 6, in accordance with relevant decisions of the COP/MOP;]

(g) [The national communication [including, *inter alia*, information related to Article 3.2 and 3.14], prepared in accordance with reporting guidelines adopted by the COP and the COP/MOP;]

(h) [The conformity of the information provided for land-use, land-use change and forestry with requirements under Article 3.3 and 3.4.]

10. The review of elements (a) to (h) above shall be conducted in accordance with parts II to VII of these guidelines.

11. Options: *What elements are reviewed together and by what teams*?

[Option 1: Each of the elements (a) to (h) above shall be reviewed together for each Annex I Party. A single in-country visit shall be conducted as part of the review.]

[Option 2 : Each of the elements (a) to (h) above shall be reviewed simultaneously by separate expert review teams. An in-country visit shall be conducted as part of the review of elements [(a)] [(b)] [(c)] [(d)] [(e)] [(f)] [(g)]and [(h)].]

[Option 3: Elements (a) to [(d)] [(f)] and (h) shall be reviewed together for each Annex I Party and separate from elements [(e) to] (g) which shall also be reviewed together. Two separate expert review teams shall conduct these reviews. Two separate in-country visits shall be conducted as part of the review of elements (a) to (d) [(f)] and (h) and [(e) to] (g).]

2. Annual review

12. Each Annex I Party shall be subject to an annual review [of information provided under Article 7.1.]

13. The following elements shall be part of the annual review:

(a) The annual inventory submission, including the national inventory report;

(b) Assigned amount information;

(c) [Projects under Article 6;]

(d) [Changes in national systems;][1]

14. The annual review, including adjustment procedures as part of the review of the annual or base year inventory, shall be concluded within [11 months] [one year] of the [due date] of submission of the information to be reported under Article 7.1 [[for each of the elements to be reviewed for each Annex I Party], excluding compliance-related procedures in the event of questions of implementation.]

15. [Element (d) in paragraph 13 above shall be subject to review as part of the annual review only if problems or significant changes have been identified by an expert review team or if the Annex I Party reports significant changes in its inventory report.][2]

16. Options: *What elements are reviewed together?*

[Option 1: Each of the elements in paragraph 13 above [shall] [may] be reviewed together for each Annex I Party by a single expert review team.]

[Option 2: Each of the elements in paragraph 13 above shall be reviewed simultaneously by separate expert review teams.]

[Option 3: Elements (a) to (c) in paragraph 13 shall be reviewed together for each

---

[1] The annual inventory may contain changes in the national system.

[2] Paragraph may need further consideration in part III of these guidelines.

Annex I Party and separate from element (d) in paragraph 13. Two separate expert review teams shall conduct these reviews simultaneously.]

3. Annual compilation and accounting of emissions inventories and assigned amounts

17. [After the annual review and resolution of any compliance-related matters, there shall be an annual compilation and accounting of emissions inventories and assigned amounts for each Party included in Annex I].

18. [The annual compilation and accounting of emissions inventories and assigned amounts shall be conducted in accordance with part [...] of these guidelines.]

4. Periodic review

19. Each Annex I Party should be subject to one scheduled in-country periodic review of its national communication reported in accordance with Article 7.2, including, *inter alia*, supplementary information related to Articles [2, 3.2, 3.14, 10 and 11] of the Kyoto Protocol during the commitment period.

20. The periodic review shall be conducted in accordance with part VII of these guidelines.

21. [The scheduled in-country visits shall be conducted over the course of the commitment period and not occur in a single year.]

D. Reporting

22. Review reports for each Annex I Party should follow a comparable format and structure as set out in parts II to VII of these guidelines.

23. Options: *What is reported together for the pre-commitment review?*

[Option 1: For the pre-commitment review, for each Annex I Party, a single report on the review of elements in paragraph 11 shall be produced.]

[Option 2: For the pre-commitment review, for each Annex I Party, an individual report shall be produced for the review of each of the elements in paragraph 9.]

[Option 3. For the pre-commitment review, for each Annex I Party, a report shall be produced on the review of elements [(a)] ,[(b)], [(c)], [(d)], [(e)] [(f)] and [(g)] in paragraph 9 and a separate report on the review of elements [(e)], [(f)] and [(g)] in paragraph 9.]

24. Options: *What is reported together for the annual review?*

[Option 1. For the annual review, for each Annex I Party, a single report on the review of the elements in paragraph 13 shall be produced]

[Option 2. For the annual review, for each Annex I Party, an individual report shall be produced for the review of each of the elements in paragraph 13.]

[Option 3. For the annual review, for each Annex I Party, a report shall be produced on the review of elements [(a)], [(b)] and [(d)] in paragraph 13 and a separate report on the review of elements [(a)], [(b)], [(c)] and [(d)] in paragraph 13.]

25. Following their completion, final review reports including initial checks on annual inventories and reports on the annual compilation and accounting of assigned amounts shall be published by the secretariat.

26. [Following their completion, final review reports [containing questions of implementation], including initial checks on annual inventories shall be forwarded through the secretariat to any body that may be designated by the COP/MOP for compliance-related purposes and also to the COP/MOP.]

E. [Composition of expert review teams and institutional arrangements

27. [Parties shall nominate experts to the roster of experts according to the procedures for such nominations. The secretariat shall select experts from the roster for expert review teams on the basis of their expertise and taking into account geographic balance, in accordance with the existing United Nations practice, [to the extent possible,] in a manner that ensures the participation of non-Annex I Party experts.]

28. [Experts not nominated by Parties may be involved in the review process, providing inputs to the expert review team. Their role should be limited to assisting the expert review team and the secretariat, in particular with those tasks not involving judgements, and they should not have responsibility for the content of review reports. They should not be involved as part of the review of an individual Annex I Party, at any stage, without the agreement of the Annex I Party concerned. Such experts should work under the guidance of the expert review team.]

29. [*(Alternative text to be further elaborated)*

(a) There shall be an expert review team to conduct the review under Article 8.

(b) The members of the expert review team shall be appointed by Parties.

(c) Experts of the expert review team shall be drawn from the roster of experts with expertise in greenhouse gas inventories, registries and assigned amounts.

(d) The expert review team shall commission experts from the roster of experts, as needed, to assist in the review process]

30. [Expert review teams for [all] [annual] reviews should be composed of experts from a standing group supplemented by experts selected from the roster on an ad hoc basis. [Experts for review teams [for periodic reviews] should be selected on an ad hoc basis from the roster of experts.]]

31. The standing group of experts for review should be composed of [x] experts.

32. The standing group should include, *inter alia*, experts for each major sector of Annex I Parties' inventories, national systems, national registries, [Article 3.3 and 3.4,] Article 6 projects and [each major sector of the national communications].

33. Service on the standing group should be limited to [three] years.

34. The functions of the standing group should include:

(a) Management of the review process, including commissioning appropriate experts from the roster of experts to undertake reviews;

(b) Responsibility for producing expert review reports;

(c) Training experts in how to conduct reviews.]

F. [Criteria for the inclusion of experts in expert review teams and in the standing group

35. The members of the standing group of experts should be nominated by Parties.

36. Expert review teams should generally have an expert for each major area to be reviewed, in accordance with the composition of the standing group and main areas of expertise in the roster of experts.

37. Expert review teams shall be selected according to criteria agreed by the COP/MOP.

38. To the extent possible, and without compromising other selection criteria, expert review teams should include at least one member with the necessary language skills to assess background documentation that may not be available in English.

39. There should be a systematic approach to expert selection based upon the following criteria:

(a) Experts should have specific qualifications, experience and references for the task to which they are assigned;

(b) Experts should successfully complete a training programme covering, *inter alia*, how to conduct a review, agreed by the COP/MOP;

(c) Experts should have no conflict of interest, including involvement in the reporting of the Annex I Party being reviewed or nationality of the Annex I Party being reviewed;

(d) The same expert should not be involved in two successive reviews of the same Annex I Party.]

PART II: REVIEW OF ANNUAL INVENTORIES

A. Purpose

1. The purpose of the review of Annex I Parties' annual GHG inventories is:

(a) To ensure that the COP/MOP and [compliance institution/body][3] have reliable information on each Annex I Party's greenhouse gas emissions by sources and removals by sinks.

(b) To provide an objective, consistent, transparent, thorough and comprehensive technical assessment of GHG inventories for conformity with IPCC guidelines, as elaborated by IPCC good practice guidance, and with inventory reporting requirements under Article 7.1;

(c) To assess if adjustments under Article 5.2 are appropriate and, if so, [to calculate adjustments][to initiate the process of calculating adjustments].

B. General procedures

2. [For review prior to the first commitment period, paragraphs [...] do not apply.]

3. The review should cover:

(a) The annual submission of the national inventory, including the inventory data electronically submitted in the common reporting format (CRF) [and the national inventory report];

(b) Supplementary information under Article 7.1 incorporated in the national inventory, excluding the information provided under section B (Information on [assigned amount] [ERUs, CERs and [AAUs][PAAs][4]]) of the guidelines under Article 7.1.

4. The annual inventory review shall be in two stages:

(a) Initial check under the authority of the expert review team,[5] with the assistance of the secretariat;

(b) Individual inventory review by the expert review team.

5. Only in the case that unresolved problems still exist in the final stage after an Annex I Party has been provided opportunities to correct problems raised by the expert review team during the review process, shall those problems be considered as "questions of implementation" and be included in the final review report.

---

[3] The text contains the term "compliance institution/body" until such time as this is defined by the compliance group.

[4] ERU: Emission reduction unit; CER: Certified emission reduction; AAU: Assigned amount unit; PAA: Part of assigned amount.

[5] The term "the expert review team" is used until such time as the institutional arrangements are agreed.

C. Initial checks of annual inventories

6. The expert review team should conduct an initial check to examine that each Annex I Party has submitted a consistent, complete and timely inventory containing both the CRF and the national inventory report and that data contained in the CRF are complete and in the correct format to enable subsequent review stages to occur.

7. The initial check shall be conducted as a desk review and should be completed within [10 working days][6 weeks] after the [due date for] [receipt of] the submission of the annual inventory. The secretariat shall immediately notify the Annex I Party concerned of any omissions or technical format problems identified in the initial check.

8. Any information, corrections or additional information received from the Annex I Party within [2 weeks][60 calendar days] of the submission due date shall be subject to initial check and shall be covered in the status report.

9. The secretariat shall forward the status reports to the [compliance body/institution] [65 days][x weeks] from the submission due date.

10. The initial check shall:

(a) Identify gaps, problems or inconsistencies in the inventory data or documentation for clarification by the Annex I Party during the individual inventory review.

(b) Identify [first order] problems;

(c) Determine promptly if the submission is complete and if information has been provided in the correct format in accordance with reporting guidelines on annual inventories;

11. The assessment of completeness, in accordance with paragraph 10 above, will determine if:

(a) All sources, sinks and gases included in the *Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories* are reported and any gaps explained, where gaps should include empty cells in the CRF and/or frequent resort to the notation keys NE (not estimated), NA (not available) etc. in completing the CRF;

(b) Methodologies are documented;

(c) Estimates for carbon dioxide (CO_2) emissions from fossil fuel combustion are reported using the IPCC reference approach, in addition to estimates derived using national methods;

(d) Estimates for hydrofluorocarbon, perfluorocarbon and sulphur hexafluoride emissions are reported by individual chemical species.

12. After the initial check, for each Annex I Party, a status report shall be produced [before the individual inventory review may begin].

Outline structure of the status report

13. The status report should include, *inter alia*:

(a) he date of receipt of the inventory submission by the secretariat;

(b) An indication whether both the CRF and the national inventory report have been submitted;

(c) An indication whether any source category or gas is missing and, if so, the proportion of the overall inventory that the source category or gas represents, relative to the [last [available] inventory] [accepted by the body that may be designated by the COP/MOP for compliance-related purposes] [for which review has been completed;]

(d) Unexplained apparent data inconsistencies.

D. Individual inventory reviews

14. [Individual inventory reviews shall provide for a detailed examination of inventory estimates and procedures and methodologies used in the preparation of inventories in accordance with the UNFCCC guidelines for technical inventory review (FCCC/CP/1999/7) or any revisions by the COP or COP/MOP.]

15. The individual inventory review shall, *inter alia*:

(a) Examine departures from the requirements of the *Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories* and the reporting guidelines on annual inventories;

(b) Examine whether the IPCC good practice guidance was applied and documented, in particular noting the identification of key source categories, selection and use of methodologies and assumptions, development and selection of emission factors, collection and selection of activity data, reporting of methodologies used for estimating uncertainties, reporting of consistent time-series and reporting of uncertainties related to inventory estimates;

(c) Compare emission or removal estimates, activity data, implied emission factors and any recalculations with data from previous submissions of the Annex I Party to identify any irregularities or inconsistencies;

(d) Compare the Annex I Party's activity data with relevant external authoritative sources, if feasible, and identify any inconsistencies;

(e) Assess the consistency of information in the common reporting format with that in the national inventory report;

(f) Assess the extent to which issues and questions raised by expert review teams in previous reports have been addressed and resolved;

(g) Recommend possible ways in which to improve methodologies and reporting of inventory information.

16. The individual inventory review shall identify [first order] problems, and identify problems for which adjustments under Article 5.2 would be appropriate and initiate procedures for calculation of adjustments.

17. Problems should be identified as a failure to follow agreed guidelines under Article 5.2 in preparing greenhouse gas inventories, as a failure to follow reporting guidelines for inventories submitted under Article 7 of the Protocol [and relevant COP decisions and as a failure to follow agreed methodologies for estimating and reporting activities under Article 3.3 and 3.4.] These may be further subdivided as problems of:

(a) Implications for total aggregated inventory estimates, trends or the base year inventory, including all inventory problems that lead to overestimation of base year emissions or underestimation of emissions in the commitment period;

(b) Transparency, as defined in the inventory reporting guidelines under Article 7 and relevant COP decisions, including:

(i) Inadequate documentation and description of methodologies, assumptions and recalculations;

(ii) Failure to disaggregate national activity data, emission factors and other factors used in national methods at the required level;

(iii) Failure to provide justifications for recalculations, references and information sources for key factors and data;

(c) Consistency, as defined in reporting guidelines under Article 7, including:

(i) Failure to provide consistent time-series in accordance with good practice guidance;

(ii) Failure of recalculations to improve accuracy or completeness;

(d) Comparability, as defined in reporting guidelines under Article 7, including failure to use agreed reporting formats;

(e) Completeness, as defined in reporting guidelines under Article 7, including:

(i) Gaps in the inventory estimates for source categories or gases;

(ii) Inventory data that do not provide full geographic coverage of sources and sinks of an Annex I Party;

(iii) Failure to provide full coverage of sources in a source category;

(f) Accuracy, as defined in reporting guidelines under Article 7, including:

(i) Failure to provide estimates of uncertainties;

(ii) Inappropriate estimation of uncertainties;

(g) Timeliness, as defined in reporting guidelines under Article 7 and any relevant decisions of the COP.

18. Problems should, to the extent possible, only be described in terms of one of the categories above.

19. [For each [outstanding] problem, the expert review team shall calculate the part of the emissions estimate affected by the problem as a proportion of the total annual inventory estimate, expressed in terms of CO_2 equivalent.]

20. The individual inventory review shall occur in conjunction with the review of [assigned amount], [projects under Article 6], [changes in national systems], [changes in national registries] as set out in part I of these guidelines.

21. The base year inventory should only be reviewed once prior to the commitment period. During the commitment period, the base year inventory shall be reviewed if it has been subject to recalculation.

22. Each Annex I Party shall be subject to at least one in-country visit by an expert review team during the commitment period as part of its annual review. In years when an in-country visit is not conducted, the annual review should be conducted as a desk review.

23. In-country visits should be scheduled, planned and take place with the consent of the Annex I Party subject to review. The scheduled in-country visits of Annex I Parties shall be evenly distributed over the course of the commitment period.

24. In years when an in-country visit is not scheduled, expert review teams can request an in-country visit, based on the findings in the desk review, subject to consent from the Annex I Party. The expert review team shall provide a rationale for the additional country visit and shall compile a list of questions and issues to be addressed during the country visit to be sent to the Annex I Party in advance of the visit.

25. If an unscheduled in-country visit occurs, then the expert review team may recommend that a pending scheduled in-country visit may not be necessary.

26. The individual inventory review, including adjustment procedures, should be completed within one year of the submission of the information to be reported under Article 7.1 for each Annex I Party, excluding the time required for compliance-related procedures in the event of questions of implementation.

27. Options: *Timing of in-country visits*

[Option 1: The scheduled in-country visit should occur in conjunction with the periodic review for each Annex I Party and with an expert review team distinct from the periodic expert review team.]

[Option 2: The scheduled in-country visit should occur in a different year to the periodic review.]

[Option 3. The scheduled in-country visit may occur in conjunction with the periodic review or in a different year, in accordance with the agreement between the Annex I Party and the secretariat [expert review team].

Outline structure of the individual inventory review report

28. The final report shall include, where relevant:

(a) A general description of the inventory, including a description of emission trends, key sources and methodologies and a general assessment of the inventory;

(b) Identification [and classification] of inventory problems and a description of factors influencing the Annex I Party's fulfilment of its inventory-related obligations;

(c) A description of any efforts by the Annex I Party to address questions identified by the expert review team during the current or previous reviews (and in relation to the [compliance body/ institution]).]

(d) Possible recommendations by the expert review team on the conduct of the review in subsequent years, including which parts of the inventory may be considered in-depth [and which may need little consideration];

(e) [Options proposed by the expert review team and the Annex I Party's response during all stages of the review process.]

(f) Information on any other issue [of concern that has been identified] [deemed relevant by the expert review team] but not investigated by the expert review team;

(g) [For outstanding problems and questions, an estimation of the quantifiable implications of the problem for the total aggregate inventory estimate, the base year estimate or the trend, together with an estimate of the uncertainty of this estimation.]

29. [The expert review team should list procedural problems, for example where:

(a) A problem was listed as a question of implementation following a previous review and the expert review team is of the view that the Annex I Party did not take sufficient action to resolve it and/or that the recommendations of the [compliance institution/body] have not been followed sufficiently.

(b) Unsatisfactory additional information and responses are provided to the expert review team's questions from the Annex I Party, resulting in outstanding questions.]

E. Roles

1. Role of Annex I Parties

30. Annex I Parties shall provide expert review teams with access to the information necessary to verify the estimation of the inventory, including archived information, in accordance with guidelines on national systems and relevant decisions of the COP/MOP and, during the in-country visit, shall also provide appropriate working facilities.

31. Annex I Parties shall make every reasonable effort to respond to all requests from the expert review team as soon as possible, but at least within the time limits set out in these guidelines.

32. Where necessary, Annex I Parties may provide aggregate data to protect commercially sensitive or confidential business or military information, but in sufficient detail for expert review teams to substantiate the implementation of the Annex I Party's commitments, and in such cases the Annex I Party should provide the legal basis for the protection of data.

33. [Annex I Parties may seek assistance from the body that may be designated by the COP/MOP for compliance-related purposes, provided that the expert review team first agrees that the assistance sought is appropriate for the problems concerned.]

2. Role of the expert review team

34. At any stage in the review process, expert review teams may raise questions for Annex I Parties and these shall not be considered as 'questions of implementation' under Article 8.3.

35. If an Annex I Party discloses confidential information to the expert review team, the Annex I Party may request a guarantee that the data will be treated with professional secrecy and maintained confidential by the expert review team.

36. [The expert review team shall make every reasonable effort to provide advice to Annex I Parties on how to correct problems that they identify, taking into account national circumstances of the Annex I Party.]

37. The expert review team shall, under its collective responsibility, produce status reports and individual inventory review reports.

38. [Option 1. The expert review team shall, as necessary, calculate [and recommend the application of] adjustments.]

[Option 2. If the expert review team recommends the calculation of an adjustment, it shall select experts from the standing group and/or the roster of experts, taking into account the required expertise and the number of adjustments to be calculated, to form an adjustment team.]

39. [The expert review team shall commission experts from the roster of experts to consider issues raised by the initial checks and other questions, including adjustments. Experts commissioned in this manner shall be considered to be members of the expert review team.

40. Experts from the roster of experts shall be commissioned, as needed, to investigate problems identified by the expert review teams.

41. The expert review team shall take into account the results of commissioned experts' investigations in drafting individual inventory review reports.]

[3. Role of the adjustment teams

42. Adjustment teams shall, as recommended by the expert review team, calculate and recommend the application of adjustments.

43. The adjustment team shall exist until such time as the adjustment is accepted by the Annex I Party and the [compliance institution/body].]

4. Role of the COP/MOP

(to be elaborated)

5. Role of the secretariat

44. The secretariat shall:

(a) Support the review process, including the pre-commitment period review, annual review and annual compilation and accounting of inventories and assigned amounts;

(b) Conduct, under the direction of the expert review team, a standardized set of data analysis and comparisons to be performed on the electronic CRF submission [to be used in the individual inventory review;]

(c) Forward to the expert review teams national reports submitted by Annex I Parties;

(d) Publish expert review team reports;

(e) List those questions of implementation identified by the expert review team in the final review report;

(f) Coordinate activities of the expert review team.

[6. Relationship to any body that may be designated by the COP/MOP for compliance purposes

45. All final review reports [including first order problems] shall be forwarded to any body that may be designated by the COP/MOP for compliance-related purposes.

46. Any body that may be designated by the COP/MOP for compliance-related purposes may, as required, [calculate and] apply adjustments.]

F. [Classification of first order problems

47. [All problems found by the expert review team shall be classified during the course of the review.] [Outstanding problems shall be classified after the Annex I Party has had opportunities to correct any such problems.]

48. Problems shall be classified as [first order] or [other].

49. The following problems should be classified as [first order] and should be identified after the initial check:

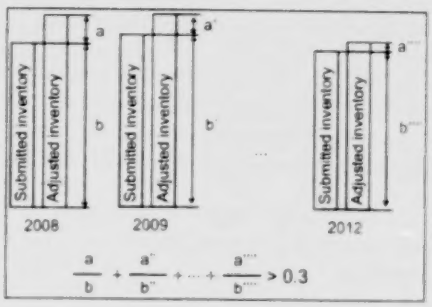
(a) Failure to submit an annual GHG inventory or an annual inventory report by the due date or within [two weeks] [one] [two] [months] of the due date if, in advance, the secretariat was notified by the Annex I Party that its submission would be up to [two weeks] late, and a valid reason was given for the delay;

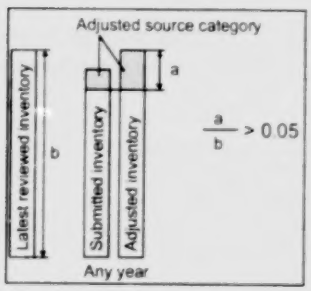
(b) Failure to submit estimates for a source category, as defined in chapter 7 of the IPCC good practice guidance agreed by the COP, that individually accounts for [x] per cent or more of the Annex I Party's total GHG emissions for the most recent year in the latest submitted inventory containing [full data] [an estimate] for the respective source category;

(c) [Unexplained, apparent data inconsistencies, including inconsistencies with previously submitted inventories and inconsistencies between different parts of the inventory where a particular inconsistency accounts for more than [x] per cent of the total inventory estimate.]

50. The following problems should be classified as [first order] and should be identified during the individual inventory review:

(a) The sum of the percent difference for each year between the Party's adjusted annual inventory and its submitted annual inventory, relative to the submitted inventory, exceeds [x].





(b) The proportion of the inventory subject to an adjustment is more than [x] per cent of the total GHG inventory for the most recent inventory for which a review has been completed.

(Diagrams have been added for illustrative purposes only.)

(c) Data inconsistencies, including inconsistencies with previously submitted inventories or between different parts of the inventory, where a particular inconsistency accounts for more than [x] per cent of the total inventory estimate.

(d) Methodological problems relating to inventory estimates that account for more than [x] per cent of the total GHG inventory estimate for a particular year.]

(Once the options have been agreed for the above paragraphs, it will be necessary to work on the language so that the meaning of each is clear; for example 'methodological' problems may need definition.)

G. Procedures for adjustments in accordance with Article 5.2

51. Adjustments referred to in Article 5.2 of the Kyoto Protocol should only be applied when inventory data submitted by Parties included in Annex I to the Convention are found to be incomplete and/or are calculated in a way that is not consistent with the *Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories* as elaborated by the IPCC report entitled *Good Practice Guidance and Uncertainty Management in National Greenhouse Gas Inventories*;

52. Adjustments shall be calculated in accordance with any guidance under Article 5.2.

53. [Prior to the first commitment period, adjustments may be calculated for the base year inventory [and the latest submitted inventory subject to review].]

54. The procedure for the calculation of adjustments should be as follows:

(a) During the individual inventory review, an expert review team shall identify problems to which the criteria in the guidance for adjustments under Article 5.2 apply. The expert review team shall officially notify the Annex I Party of the reason why an adjustment is considered necessary and provide advice on how the problem could be corrected;

(b) The adjustment procedure should only commence after an Annex I Party has had opportunities to correct a problem and if the expert review team finds that an Annex I Party has not adequately corrected the problem through the provision of an acceptable revised estimate, in accordance with the time-frames set out in paragraphs [...] below;

(c) The expert review team shall calculate adjustments in accordance with guidelines under Article 5.2, in consultation with the Annex I Party concerned and within the time-frame set out in these guidelines.

(d) [Adjustments for any unresolved problems may not be calculated, if

(i) The underlying problem is [first order]; or

(ii) In total, the adjustments exceed [x] per cent of the total inventory in a particular year.

(iii) [...]]

(e) The expert review team shall officially notify the Annex I Party concerned of the calculated adjustment(s) within the time-frame set out in these guidelines. This notification shall describe the assumptions, data and methodologies used to calculate the adjustment(s), as well as the value of the adjustment(s).

(f) Within the time-frame set out in these guidelines, the Annex I Party concerned shall notify the secretariat of its intention to accept or reject the adjustment(s), with its rationale. Failure to respond by this date shall be considered as [rejection] [acceptance] of the adjustment(s), as follows:

(i) If the Annex I Party accepts the adjustment(s), the adjusted estimate(s) shall be used for the purpose of compilation and accounting of emissions inventories and assigned amounts.

(ii) If the Annex I Party does not accept the adjustment(s) it should send a notification to the expert review team including its rationale and the expert review team should send the notification [along with its recommendation to any body that may be designated by the COP/MOP for compliance-related purposes.]

55. *(A paragraph on publication and relation to the [compliance institution/body] may need to be elaborated.)*

56. An Annex I Party may submit a revised estimate for a part of its [commitment period] inventory to which an adjustment was previously applied, provided that the revised estimate is submitted, at the latest, in conjunction with the inventory for the year 2012. The revised estimate will replace the adjusted estimate subject to review under Article 8 [with the authorization of the [compliance institution/body]]. The option for an Annex I Party to submit a revised estimate for a part of its [commitment period] inventory to which an adjustment was previously applied should not prevent Annex I Parties from making best efforts to correct the problem at the time it was initially identified and in accordance with the time-frame set forth in the guidelines for review under Article 8.

Outline structure of the adjustment report

57. The adjustment report should include, *inter alia*,

(a) The original estimate, if applicable;

(b) The underlying problem;

(c) The adjusted estimate;

(d) The rationale for the adjustment;

(e) The assumptions, data and methodology used to calculate the adjustment;

(f) [A description of how the adjustment is conservative and time consistent];

(g) [The uncertainty associated with the adjustment];

(h) The expert review team's identification of possible ways for the Annex I Party to address the underlying problem;

(i) Adjustments as a share of the total GHG inventory for the year concerned;

(j) An indication whether the adjustment was agreed upon by the Annex I Party and the expert review team.

H. [Timing

58. The secretariat, the expert review team [adjustment team] and each Annex I Party should follow the timing indicated in the table below.

Timing of review and adjustment procedures

AGENT	ACTION	MAXIMUM TIME-SCALE
	Initial checks	
Expert review team	Initial check and draft status report	6 weeks
Annex I Party	Comment on status report	2 weeks
Expert review team	Produce revised report with outstanding questions	2 weeks
Annex I Party	Provide explanatory text (where necessary)	1 week
Expert review team	Produce final report	1 week
Secretariat	Publish status report and forward to a [body for compliance purposes]	2 weeks
	Assistance	
Annex I Party	Request assistance	4 weeks from receipt of the status report
Expert review team	Recommend if appropriate	2 weeks from request
[Body for compliance]	Provide assistance	6 weeks from recommendation
	Individual desk review[6]	
Expert review team	Send first questions to Party	3 weeks from publication of status report
Annex I Party	Respond to any questions	3 weeks from receipt
Expert review team	Request additional in-country visit, if necessary	7 weeks from publication of status report
Secretariat	Organize additional in-country visit with Annex I Party	8 weeks from request

[6] A Party would be subject either to a desk review or to a scheduled in-country review in a particular year.

Individual in-country reviews		
Expert review team	Send first questions in advance of visit	3 weeks from publication of status report
Annex I Party	Respond to any questions	3 weeks
Expert review team	In-country visit	1 week
Adjustment process[7]		
Expert review team	Select adjustment team	2 weeks from recommendation of adjustment to the Party
Adjustment team	Calculate adjustments	4 weeks from being established
Annex I Party	Accept or reject adjustments and advise the adjustment team	2 weeks from receipt
Adjustment team	Complete adjustment report	2 weeks from response by the Party
Expert review team	Review adjustment procedure	1 week from receipt of report
Expert review team	Notify the [body for compliance purposes] in the event of a dispute	1 week from receipt of report
[Body for compliance purposes]	[Calculate and] Apply adjustments	6 weeks from request
or		
Expert review team	Calculate adjustments	3 weeks
Annex I Party	Accept or reject adjustments and advise the expert review team	1 week from receipt
Expert review team	Notify the [body for compliance purposes] in the event of a dispute and produce adjustment report	2 weeks from receipt of Party's response

[7] The adjustment process will only be used if necessary.

	Final individual inventory review report	
Expert review team	Produce draft individual inventory report	x weeks from publication of status report
Annex I Party	Comment on draft individual inventory report	4 weeks from receipt
Expert review team	Produce revised draft inventory report	3 weeks from receipt of comments
Annex I Party	Comment on revised draft individual inventory report	2 weeks from receipt
Expert review team	Produce final individual inventory report	2 weeks from receipt of comments
Secretariat	Edit and publish final individual inventory report	2 weeks from receipt
	Total time allotted to all tasks	52 weeks]

I. Reporting

59. There shall be two reports for each Annex I Party: a status report after the initial check and an individual inventory review report after the annual inventory review.

60. The draft of each status and individual review report shall be sent for comment to the Annex I Party subject to review.

PART III: REVIEW OF INFORMATION ON ASSIGNED AMOUNTS

A. Purpose

1. The purpose of the review of information on assigned amounts is to ensure that the COP/MOP and any body that may be designated by the COP/MOP for compliance-related purposes have adequate information on assigned amounts [for each year of the commitment period.]

B. Timing and procedures

2. The review of information on assigned amounts shall cover:

(a) Issuance and cancellation of assigned amounts with respect to Article 3.7, [3.3 and 3.4;]

(b) Transfers and acquisitions under Articles [4,] 6, 12 and 17;

(c) Retirement of assigned amount units;

(d) Total [holdings] of assigned amounts in the national registry;

(e) [Banked] [assigned amount units][parts of assigned amount] at the end of the 'true-up' period in accordance with Article 3.13.

1. Review of the assigned amount

3. The expert review team shall review the information on assigned amounts as a centralized desk exercise.

4. The expert review team shall:

(a) Check if information is complete and submitted in accordance with the guidelines under Article 7 and relevant decisions of the COP;

(b) Check that issuance of assigned amount pursuant to Article 3.7 and 3.8 is calculated in accordance with requirements under Article 7.4, is consistent with reviewed and adjusted inventory estimates, is consistent with information submitted in previous years, and is serialized in conformity with procedures under Article 7.4;

(c) Cross-check the reported information on transfers and acquisitions between Parties [and highlight any discrepancies];

(d) [Assess the issuance and cancellation of assigned amounts under Article 3.3 and 3.4 reported in accordance with methodologies under that Article;]

(e) [Check that issuance and cancellation of assigned amount pursuant to Article 3.3 and 3.4 is calculated in accordance with requirements under Article 7.4, is consistent with reviewed and adjusted inventory estimates and is serialized in conformity with procedures under Article 7.4.]

(Further elaboration on process of results is needed.)

C. Reporting

(to be elaborated)

D. Identification and classification of problems

(to be elaborated)

PART III BIS: ANNUAL COMPILATION AND ACCOUNTING OF EMISSION INVENTORIES AND ASSIGNED AMOUNTS

(Without prejudice to the placement of this part, annual compilation could be a separate part of Article 8 guidelines, included in part I or in modalities for accounting of assigned amount under Article 7.4)

A. Purpose

B. Timing and procedures

1. The annual compilation and accounting of emissions inventories and assigned amounts shall occur for each Annex I Party after its individual inventory and assigned amount reviews are complete, including any [compliance-related procedures] in the event of questions of implementation.

2. The secretariat shall record, in a database for each Annex I Party, in terms of CO_2 equivalent:

(a) Aggregate annual greenhouse gas emissions inventory information for each year of the commitment period that has been subject to an annual review;

(b) [Total difference between the adjusted estimate and the original inventory estimate.] [Any adjustments under Article 5.2 applied for each year];

(c) Cumulative emissions in the commitment period, taking into account any adjustments agreed in accordance with the provisions of these guidelines;

(d) [GHG emissions or removals under Article 3.3 and 3.4] *(Further consideration of information to be recorded on land-use, land-use change and forestry is needed).*

(e) Initial assigned amount pursuant to Article 3.7;

(f) [Assigned amount issued or cancelled pursuant to Article 3.3 and 3.4;]

(g) Total [assigned amounts units][parts of assigned amount] acquired;

(h) Total [assigned amounts units][parts of assigned amount] transferred.

3. Options: Timing of annual compilation and accounting at the end of the commitment period

[Option 1: Following the annual review for the final year of the commitment period [including any compliance-related procedures in the event of questions of implementation], an additional [x] weeks shall be allowed before the secretariat conducts the annual compilation and accounting of emissions inventories and assigned amounts.]

[Option 2: Following the annual review of the inventory for the final year of the commitment period, the secretariat shall conduct the annual compilation and accounting of emissions inventories and assigned amounts (at the end of the 'true-up' period).]

C. Reporting

4. A single report on the annual compilation and accounting of assigned amounts shall be published after the end of the commitment period [and the 'true-up' period] and forwarded to the [compliance institution/body].

(Parts IV to VII were not discussed during the first part of the thirteenth session of the SBSTA, so the remainder of this text is taken unchanged from document FCCC/SBSTA/2000/7)

PART IV: REVIEW OF NATIONAL SYSTEMS

A. Purpose

1. The expert review team should assess the extent to which the guidelines for national systems under Article 5.1 have been adhered to, especially any mandatory elements.

B. Timing and procedures to be undertaken

2. Changes in national systems shall be reviewed annually.

3. A thorough review of national systems shall be conducted as a country visit.

C. Reporting

4. For the pre-commitment period review, the results of the review of national systems shall be contained in a report separate from the national communication review report.

5. For review during the commitment period, the results of the review of national systems shall be integrated into the national communication review report.

6. The results of the review of changes in national systems shall be integrated into the annual inventory review report.

D. Identification and classification of problems

(to be elaborated)

PART V: REVIEW OF NATIONAL REGISTRIES

A. Purpose

1. The expert review team should assess:

(a) The extent to which the guidelines for national registries have been adhered to, especially any mandatory elements;

(b) If accounts have been established in the national registries for all legal entities.

B. Timing and procedures to be undertaken

C. Reporting

D. Identification and classification of problems

(to be elaborated)

PART VI: REVIEW OF INFORMATION UNDER ARTICLE 6

A. Purpose

B. Timing and procedures to be undertaken

C. Reporting

D. Identification and classification of problems

(to be elaborated)

PART VII: NATIONAL COMMUNICATIONS AND OTHER COMMITMENTS UNDER THE PROTOCOL

A. Purpose

1. The purposes of the guidelines on the review of national communications, including information reported under Article 7.2, are to promote consistency in the review of the information contained in the national communications, including information provided under Article 7.2, for Annex I Parties.

B. Timing and procedures to be undertaken

C. Reporting

D. Identification and classification of problems

(to be elaborated)

Appendix

POSSIBLE ELEMENTS OF A DRAFT DECISION ON TIMING AND PROCEDURAL ASPECTS OF REVIEW

A. Options: Start of the pre-commitment period review

[Option 1: The pre-commitment period review for each Annex I Party shall commence in [2005] [2006] [2007] [or earlier if an Annex I Party requests to be reviewed].

[Option 2. The pre-commitment period review for each Annex I Party shall commence in 2007 unless the Party has voluntarily initiated the review earlier.]

[Option 3: The pre-commitment period review for each Annex I Party [shall] [should] [be conducted] [commence] [on a voluntary basis] following the submission of information in accordance with Article 7.]

[Option 4: The pre-commitment period review for each Annex I Party shall be conducted following the submission of information in accordance with the criteria contained in the guidelines under Article 7. Annex I Parties may submit information under Article 7 on a voluntary basis up to the year [2006], whereupon reviews shall be conducted for each Annex I Party.]

[Option 5: The pre-commitment period review for each Annex I Party may [be conducted] commence on a voluntary basis up to the year [2007], whereupon reviews shall be conducted for each Annex I Party.]

[Option 6: The reviews of information under Article 7 in the pre-commitment period, including procedures for adjustments, should be completed for each Annex I Party by the end of 2007.]

B. Options: Start of the annual review

[Option 1: The annual review for each Annex I Party shall commence in the first year of the first commitment period.]

[Option 2: The annual review for each Annex I Party shall commence in the year following the review of the [base year] inventory as part of the pre-commitment period review.]

[Option 3: The annual review for all Annex I Parties shall commence with the first annual inventory submitted for review under Protocol requirements. For Parties that choose to participate in the Kyoto Protocol mechanisms, the annual review shall commence in the year following the review of the [base year] inventory as part of the pre-commitment period review.]

[Option 4: The annual review shall commence prior to a Party making transfers or acquisitions under Articles 6, 12 and 17.]

C. Options: Start of annual compilation and accounting

[Option 1: The annual compilation and accounting of emissions inventories and assigned amounts shall start in the first year of the commitment period.]

[Option 2: After the pre-commitment period review, a compilation with the initial assigned amounts should be produced.]

[Option 3: The annual compilation and accounting of emissions inventories and assigned amounts should occur after the annual review of the inventory for the first year in which transfers and acquisitions under Articles 6, 12 and 17 take place.]

[Option 4: The annual compilation and accounting of emissions inventories and assigned amounts shall occur after the annual review, beginning with the 2008 inventory.]

[Option 5: The annual compilation and accounting of emissions inventories and assigned amounts shall occur after the annual review, beginning in the first year of the commitment period.]

[Option 6: The annual compilation and accounting of emissions inventories and assigned amounts shall occur after the annual review, beginning when the first annual review begins.]

[Option 7: The annual compilation and accounting of each Annex I Party's emissions and assigned amounts shall begin the year the Annex I Party undergoes a pre-commitment period review. However, emissions information shall not be compiled until the 2008 inventory is submitted.]

- - - - -

UNITED NATIONS

Framework Convention on Climate Change

Distr.
GENERAL

FCCC/SBSTA/2000/10/Add.4
26 September 2000

Original: ENGLISH

SUBSIDIARY BODY FOR SCIENTIFIC AND TECHNOLOGICAL ADVICE

REPORT OF THE SUBSIDIARY BODY FOR SCIENTIFIC AND TECHNOLOGICAL ADVICE ON THE WORK OF ITS THIRTEENTH SESSION (PART ONE) LYON, 11-15 SEPTEMBER 2000

Addendum

DEVELOPMENT AND TRANSFER OF TECHNOLOGIES: STATUS OF THE CONSULTATIVE PROCESS (DECISION 4/CP.4)[1]

DRAFT FRAMEWORK FOR MEANINGFUL AND EFFECTIVE ACTIONS TO ENHANCE THE IMPLEMENTATION OF ARTICLE 4.5 OF THE CONVENTION

Draft text by the co-chairs of the contact group

A. Purposes

Option 1

1. This text shall serve as a framework for the implementation of commitments under Article 4.5 of the Convention. Under Article 4.5, the transfer of environmentally-sound technologies and know-how is the commitment of developed country Parties and other developed Parties included in Annex II to take all practicable steps to promote, facilitate and finance, as appropriate, the transfer of, or access to, environmentally-sound technologies and know-how to other Parties, particularly developing country Parties, to enable them to implement the provisions of the Convention.

Option 2

1. The purpose of this framework is to enhance the implementation of Article 4.5 of the Convention by increasing the flow of environmentally-sound technologies (ESTs) and know-how.

[1] This item was considered by the Subsidiary Body for Scientific and Technological Advice at the first part of the thirteenth sessions, under agenda item 10.

Option 3

1. This framework has three specific purposes:

(a) To enhance the implementation of Article 4.5 of the Convention by increasing the flow and the quality of transfer of ESTs;

(b) To recommend practicable steps to promote, facilitate and finance, as appropriate, the transfer of, or access to, environmentally-sound technologies (ESTs) and know-how (decision 4/CP.4);

(c) To support the development and enhancement of endogenous capacities and technologies of developing country Parties.

B. Overall approach

2. This framework is developed with the recognition that, under Article 4.5, the developed country Parties and other developed Parties included in Annex II shall take all practicable steps to promote, facilitate and finance, as appropriate, the transfer of, or access to, environmentally-sound technologies and know-how to other Parties, particularly developing country Parties, to enable them to implement the provisions of the Convention. [To support the development and enhancement of endogenous capacities and technologies of developing country Parties. Other Parties and organizations in a position to do so may also assist in facilitating the transfer of such technologies.]

[3. The [successful] implementation of Article 4.5 requires the [full] cooperation as well as the participation of all stakeholders from both developed and developing country Parties.]

4. The implementation of Article 4.5 takes into account the understanding that technology transfer is a broad set of processes covering the flows of know-how, experience and equipment for mitigating and adapting to climate change amongst different stakeholders such as governments, private sector entities, financial institutions, non-governmental organizations and research and education institutions.

5. The process of technology [transfer] [needs assessments] should be [equitable], bottom-up, and [demand-] and country-driven in recognition of the diverse environmental, geographic, economic and social characteristics of developing countries and regions. [Some developing countries or regions may give priority to adaptation technologies while others may give priority to mitigation technologies.]

[5b. Technology transfer, as defined in Article 4.5 of the Convention, should focus on the actions which could be taken by Parties, in addition to what is already happening as business as usual in the market, in spite of the fact that the private sector and the market play an important role in disseminating ESTs.]

6. The transfer of [state-of-the-art] environmentally-sound technology for mitigation and adaptation to climate change [may][should] include both "soft" and "hard" elements of

technology, including capacity-building, and should promote sustainable development and achievement of the ultimate objective of the Convention.

7. The role of governments is crucial in enhancing an enabling environment, including the [removal of barriers][creation of incentives], for the private sector to promote the [transfer] [dissemination] of, and access to, environmentally-sound technologies (ESTs)], particularly adaptation technologies]. [Governments shall take actions to ensure the transfer of technology and to evaluate the extent to which they have met their commitments under Article 4.5.] [The government plays an important role in supporting development and transfer of ESTs which are commercially less viable and in providing a regulatory framework for creating demand and a market for ESTs.]

[7+8. Governments of developing and developed countries can facilitate and expand cooperation involving their public and private sectors. In this context, barriers and restrictions to the transfer of publicly and privately owned ESTs should be identified, with a view to reducing such constraints, while creating specific incentives, fiscal or otherwise, for the transfer of and access to ESTs, particularly adaptation technologies.]

[8. The private sector in developing country Parties and Annex II Parties plays a critical role in the transfer of technology. However, the EST market in many developing countries, particularly the least developed countries, is in an early stage of development and requires further assistance from Annex II Parties in order to be able to play a meaningful role in the transfer of ESTs.]

[8b. In order to increase the flow and quality of technology transfer, Parties should adopt an integrated approach that focuses on the development of national and or regional strategies for technology transfer. Such strategies should be devised on the bases of a country-driven and sector-specific approach in recognition of the diverse environmental, geographic, economic and social characteristics of developing countries and regions. This integrated approach should include technology needs assessment, identification of barriers and actions to reduce or remove them, enhancement of information provisions and capacity-building.]

9. The transfer of technology requires an [integrated] approach that focuses on [products and techniques][technologies] with multiple benefits that address the objective of the Convention and at the same time [respond to][are consistent with] national development priorities. [such as poverty alleviation, socio-economic development, improvement of public health and reduction of environmental pollution. The integrated technology transfer approach should be developed into a national strategy that takes into account the interests and interactions of the different stakeholders.]

10. The process of technology transfer should build upon and/or incorporate the current activities of the government, private sector, non-governmental organizations, research and academic institutions and bilateral and multilateral institutions. It should also enhance the networks of and partnerships between these stakeholders.

C. Key themes and areas for meaningful and effective actions

1. Technology needs and needs assessments

Areas for activities or action

11. Technology needs assessments, based on an integrated approach, are an important element of a framework to enhance the transfer of technology under the Convention. The following activities should be considered in the implementation of technology needs assessments:

(a) Identification of technology needs through sectoral analyses which are rigorous and demand-driven aimed at identifying both mitigation and adaptation technologies as appropriate to each country and/or region;

(b) A country-driven process to evaluate and prioritize local needs for ESTs and should embrace a consultative approach and include all stakeholders;

(c) Identification and analysis of barriers to technology transfer and the actions to remove these barriers.

Means of implementation

12. The following are means of implementing technology needs assessments:

(a) The Chairman of the Subsidiary Body for Scientific and Technological Advice (SBSTA), with the assistance of the secretariat, is requested to organize an experts' meeting, resource permitted, to develop guidelines on needs assessments and to consult with Parties and other relevant international organizations in the development of such guidelines;

(b) Non-Annex I Parties are encouraged to undertake assessments of technology needs and identification of barriers, to meet the needs assessment guidelines;

(c) Developed country Parties and other developed Parties included in Annex II shall take all practicable steps to promote, facilitate and finance, as appropriate, the conduct of needs assessments in developing country Parties;

(d) All Parties are requested to enhance reporting in their national communications of technology cooperation and transfer activities. In so doing, the Annex II Parties are urged to give particular attention to reporting on technology transfer activities, as specified in part II of the revised guidelines for reporting by Parties included in Annex I to the Convention. Parties not included in Annex I to the Convention that have not already done so are invited to report their technology needs, in their national communication and/or in other relevant report, to the extent possible.

2. Technology information

Areas for activities or action

13. The framework should improve the flow of, access to and quality of technical, legal and economic information relating to the development and transfer of mitigation and adaptation technologies under the Convention. The following activities should be considered in the implementation of technology information strategies:

(a) Technology information programmes should be demand-driven and result-oriented. They should facilitate public awareness, and informed decision-making and enhance public and private sector capacity to access and utilize relevant technology information;

(b) Information systems at national, regional and international levels should be integrated through existing specialized information centres and networks.

Means of implementation

14. The following are means of implementing technology information activities:

(a) The Convention secretariat is requested (i) to continue its work on technology information and a project inventory database by consulting with Parties and relevant international organizations and (ii) to develop options for a one-stop database and specialized information system that allows quick access to reliable information on ESTs, know-how, good practice and other information relevant to technology transfer;

(b) The Annex II Parties are requested to take all practical steps to promote, facilitate and finance, as appropriate, the establishment of an international information clearing house with linkage to regional and subregional networks. The clearing house shall have the following objectives:

(i) To improve information access for Parties on existing technical and financial programmes of technology assistance;

(ii) To provide donors, the private sector, academia, non-governmental organizations and other stakeholders with information on opportunities related to countries' technology needs;

(iii) To facilitate information exchange on experience and processes in the development of standards, codes and labelling as well as other relevant legal information;

(iv) To create an information network on technology inventories, donor programmes and other activities related to technology transfer.

3. Enabling environments

Areas for activities or action

15. The following activities should be considered in creating the enabling environments for technology transfer:

(a) The identification and analysis of economic, legal and institutional barriers at each stage of the technology transfer process to ensure private sector participation;

(b) The development of macroeconomic conditions that contribute to sustainable development and economic growth;

(c) The development of effective and efficient legal and regulatory systems, including the development of industry codes, product standards, and certification, as well as regimes for the protection of intellectual property rights and efficient rules for transactions to encourage innovation by the private sector;

(d) The introduction of economic measures that promote research and development of ESTs and the utilization of networks of research institutions.

Means of implementation

16. The following are means of creating enabling environments for technology transfer:

(a) All Parties, particularly Annex II Parties, are invited to improve the enabling environment, including the removal of barriers to, and establishment of incentives for private sector activities that advance the transfer of technologies to address climate change and its adverse impacts;

(b) All Parties are urged to create or expand commercial markets for ESTs essential to technology transfer and agree to address barriers to the transfer of these technologies through improved legal and regulatory structures, investment policies, pricing structures and incentives;

(c) Developed country Parties are encouraged to develop and implement economic measures, e.g. export credit facilities, government procurement contracts, and tax preferences, as well as appropriate regulations to promote transfer of ESTs;

(d) All Parties are urged to provide intellectual property rights protection and preferential incentives to disseminate ESTs with a view to promoting mutually beneficial win-win partnership between developed and developing countries as well as between the public and private sectors;

(e) Developing country Parties should be encouraged to include climate change technology transfer priorities in their national development strategies;

(f) Developed country Parties, where appropriate, are encouraged to provide access by developing countries to relevant government-owned technologies;

(g) Developed country Parties, in cooperation with developing country Parties, are encouraged to develop joint research and development programmes and to integrate the climate change technology transfer objective of such programmes;

(h) All Parties are encouraged to strengthen, to the extent appropriate, the linkage between the research and development community and the development cooperation agency to facilitate developing country access to public research and development programmes;

(i) Developing country Parties are encouraged to develop and enhance regional and South-South technology transfer partnerships, particularly for adaptation technologies;

(j) All Parties, particularly developed country Parties, are encouraged to establish, as appropriate, programmes for technology testing, certification and labelling.

4. Capacity-building

Areas for activities or action

17. Capacity-building is a cross-cutting issue, for which overlapping needs and activities extend across many different aspects of activities under the Convention. The following are activities related to effective capacity-building in technology transfer under Article 4.5 of the Convention:

(a) Capacity-building to support the assessment and prioritization of technology needs, the development of technology implementation plans, and the development of effective enabling environments;

(b) Capacity-building to strengthen institutions such as regulatory, legal and financial institutions, to enable them to promote technology transfer;

(c) Capacity-building to enhance the involvement of developing countries in research and development on climate-related ESTs so as to absorb technologies and adapt them to local conditions.

Means of implementation

18. The following are means of building capacities of all stakeholders, particularly of the developing countries:

(a) Developed country Parties are encouraged to support capacity-building and the strengthening of appropriate institutions in developing countries to enable the transfer of environmentally-sound technologies and know-how;

(b) Developed countries are urged to establish training, expert exchange and scholarship programmes aimed at enhancing the teaching and research capabilities of higher education and other private and public institutions in developing countries, for the transfer, operation, maintenance, adaptation, diffusion and development of ESTs;

(c) All Parties, particularly developed country Parties, are encouraged to enhance the capacity of financial institutions, public, private and international, to evaluate ESTs on an equal footing with other technology options, addressing perceived risks, scale of projects and other barriers to financing.

5. Mechanisms for technology transfer

19. The objective of mechanisms for technology transfer is to enhance the coordination of the full range of stakeholders in different countries and regions and to engage them in cooperative efforts to accelerate the development and diffusion, including transfer, of environmentally-sound technologies, know-how and practices to and between developing countries through technology cooperation and partnerships (public/public, private/public and private/private).

Means of implementation

20. To achieve the above-mentioned objectives and carry out the various activities suggested under each theme, the Parties may wish to consider the following actions as part of a framework for the implementation of meaningful and effective actions to enhance the implementation of Article 4.5 of the Convention:

(a) To invite Parties to adopt a coordinated approach to enhancing technology transfer under Article 4.5 which includes: needs assessments, capacity-building, enhancement of information systems, identification of barriers and actions for the removal of barriers in a manner which optimizes the effect of each of these activities;

(b) To establish an intergovernmental technical advisory panel, an innovative mechanism in the context of UNFCCC, to assist developing country Parties to obtain environmentally-sound technologies and know-how related to climate change on non-commercial and preferential terms, thus contributing to the ultimate objective of the Convention;

(c) To establish a separate funding mechanism specifically for technology transfer within the Convention;

(d) To establish a revolving EST investment fund to finance EST transfer projects and programmes, with payback to the fund from the proceeds of the projects through profit sharing;

(e) To establish a framework to enhance implementation of Article 4.5 which incorporates a wide range of existing bilateral and multilateral programmes, activities, institutions and financing, including those of the Global Environment Facility (GEF), to improve the availability of information on existing instruments, based on information provided by the national communication of the Parties;

(f) To maintain the Global Environment Facility as the operating entity of the financial mechanism, and to continue GEF activities to promote and finance technology transfer in response to Article 4.5 of the Convention;

(g) To consider the potential role of the clean development mechanism and joint implementation under the Kyoto Protocol as supplemental activities to promote, facilitate and finance the transfer of ESTs for the promotion of sustainable development and the protection of the global climate;

(h) To establish an environmentally-sound technology bank or centre that could serve as a vehicle to share and exchange publicly funded technologies and know-how which could be offered on a voluntary basis;

(i) To encourage the Parties to explore the opportunity to use official development assistance as one possible catalyst to encourage the flow of climate change technology transfer to developing country Parties in support of each country's sustainable development priorities;

(j) To request the Parties to encourage the multilateral development banks, through their respective boards and councils, to enhance their programming and lending for activities that support the objective of the Convention;

(k) To encourage Parties to implement practical cooperation programmes and projects to facilitate the transfer of technologies to reduce greenhouse gas emissions and facilitate the adaptation to climate change and its adverse effects, while supporting sustainable development

- - - - -